T H E S I S

O N

THE BACTERIOLOGY OF PUERPERAL PYREXIA.

by

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Introduction.

A study of Puerperal Sepsis has already been made by various observers and from different standpoints. There is however ~~so~~ much information yet to be obtained or confirmed on account of the available statistics being comparatively small. Thus having the control of a large number of patients, I have felt it a duty to endeavour to increase the list of cases of this most important subject.

In private practice the opportunity for a systematic research is not great, and the total number of cases seen is relatively small in comparison with those of a large Maternity Hospital with, in addition, an External Department, in which nearly 2500 patients are treated in their own homes annually. Here numbers are obtained and it is possible to collect the cases throughout every month of the year, so that a consecutive list results.

In addition to this, I have been unable to find any records of the Bacteriology of fevers of the Puerperium from the Maternity Hospitals of the Three Kingdoms.

In reports obtained elsewhere, the investigation has been either a purely Bacteriological one or a Clinical, in which while following the course of each case in reference to treatment, no attempt has been made to ascertain the specific cause.

In this study an endeavour has been made to combine these two aspects, the germ being demonstrated at the commencement of the pyrexia, and the case being followed to its termination with a record of the events as they occurred.

Although in 1850 Sir J.Y.Simpson published a paper on the "Analogy between Puerperal and Surgical Fever" and investigations have since proved the analogy, there are still many practitioners who fail to appreciate and even deny their identity, and who will attend a woman in her confinement without any, or but scanty attempts at aseptic precaution, while they will take considerable care before performing any surgical operation. Thus any additional information on the subject seems of some value.

A number of inquiries have been made into the Bacteriology of the Vagina, both of non-pregnant and pregnant women, and various results obtained, but a fairly definite conclusion has resulted. Therefore I have not attempted to carry any investigations into this region, but have waited until the condition of pyrexia manifested itself, and have then endeavoured to ascertain its cause in the simplest manner possible and directly from the uterus.

The results are tabulated at the end of the paper and appear there in order of their occurrence, no attempt being made to arrange them into Groups.

In the Charts it will be observed that the temperature line is marked in black and the pulse in red, so that an immediate comparison may be made between the two. The Chart stands above the case to which it refers.

In the Tables each case is marked a hospital one (R.H.) or one occurring in the Extern Department (Ext), but only under the heading of Streptococci has this been done in the text.

Under the heading of Lochia only the appearance and odour is considered, no further examination of it being attempted.

The Bacteriology of Puerperal Pyrexia and its Therapeutics based on 130 Cases occurring in the Practice of the Rotunda Hospital Dublin.

Methods adopted in Examination.

In each of these cases the following method was pursued. The patient was placed in the cross-bed position with her hips at the edge of the bed, and the external genitals were thoroughly washed with carbolic soap and creolin solution ·6% to 1·5%. The vagina was next thoroughly douched with solution of a similar strength, the walls being distended by the fingers and some friction applied so as to cleanse the parts as perfectly as possible. The bladder was then emptied.

Passing a Sims' speculum, the cervix was exposed, and the anterior lip, caught with a bullet forceps, was drawn down to the vaginal orifice. A small sharp sterilised curette was then gently and carefully passed through the patulous internal os and up into the uterine cavity until the fundus was reached, considerable care being taken not to bring it into contact with any part until well inside the uterus. Next, drawing the instrument down the wall of the cavity as far as the os internum, a small portion of material was withdrawn, care being taken to avoid touching cervical canal or external parts and it was placed in a sterilised tube. This process was repeated two or three times

in different parts of the cavity and the material so obtained sealed up in the test tube.

There was no practical difficulty either in inserting the curette or withdrawing the material, as in every case where interference was necessary the cervix was more or less widely dilated and was with ease drawn down to the introitus. Indeed, during the past four and a half years' work at the hospital I have never seen a case of pyrexia occurring at any period of the Puerperium which was due to a uterine condition in which the cervical canal was closed.

Proceeding next to the Laboratory, one or several smear preparations were made from the fleshy fragments, the blood clot proving unsatisfactory.

The staining was done in the first instance with aqueous solution of Fuchsin and in a considerable number of cases Gram's stain was used in addition. If any doubt still existed, cultures were made and examined. In a very large proportion of cases however, the results in the smear preparations were so definite and readily obtained that no further investigation was deemed necessary unless for purposes of checking.

The microscopic examination in some of the cases was quickly done on account of the very numerous and definite organisms present. But considerable time was occupied by many in which, owing to the isolation of the germs, several smears had to be made and examined before the result was sufficiently exact to be satisfactory.

Treatment.

In every case after the scrapings had been obtained for microscopic Examination the Rheinstädter blunt flushing curette was used and every portion of the uterine wall thoroughly scraped, considerable care being taken to apply the instrument to the cornua and that portion of the fundus lying between them. A copious hot uterine douche was then given with the Bozeman-Fritsch catheter. One or two gallons of creolin solution were used in this process, the temperature of which at the commencement was about 105·F and gradually increased to 120. or more.

The patient was then warmly wrapped in additional blankets and hot bottles placed round her, a drink of hot milk was given her, and later, a draught containing Ergot 3ⱼ and Quinine Sulph: grs V.

In a few cases a slight shivering occurred and was usually associated with a rise of temperature, but this was a temporary condition and rarely occurred if the foregoing precautions were rapidly taken.

The need for further treatment depended largely on the period at which the preliminary interference was made, the thoroughness of the curetting, and the microorganism which was present. As the tables will show however, this last condition does not appear to be so relatively important as might be expected.

The rule at the hospital has been for some years past to consider a temperature one of morbidity when it reaches 100.8 F, and for practical purposes this has worked out very satisfactorily. But when this degree is reached experience goes to shew that the sooner active treatment

is adopted the better the result. If any delay occurs the results are not nearly so good, and the temperature will probably continue above the normal point for a number of days longer than in a case which has had immediate treatment and in which the same organism is found. The same can be said in regard to the thoroughness of the curetting. If it be thorough and done early, the organisms which are then only superficial may be entirely removed or only such a small number left that the leucocytes are quite able to destroy them. This is of course considering cases where the seat of infection is the uterus itself and not wounds about the cervix and vagina with lymphatic infection. If it be not thorough, (some parts of the infected decidual or placental debris being untouched), or be deferred the organisms have an opportunity of spreading deeper and may have passed into the uterine sinuses or lymphatics and are then beyond the reach of the curette. If portions of the "necrotic material" are left (Witridge Williams, American Journal of Obstetrics Sept. & Oct. 1898) untouched, a further danger arises of spread of the germs, not only through this tissue but from it to that part of the uterine wall denuded by the curette.

In using the blunt flushing curette I have never, after an experience of several hundred cases, seen, or had any reason to believe, any injury to occur to the uterine wall. With a well shaped instrument the upper part is curved over so that on reaching the fundus the flattened portion comes in contact with the uterine wall, which it cannot penetrate even if considerable violence is used.

In drawing it down the wall, the edge is too blunt to cause injury and only the softened "necrosed tissue" is removed. With a constant flow of fluid the debris is expelled as it is detached and the final douche washes out any particles which may be left.

A very thorough curettage can be made without drawing the cervix downwards and as some injury may be caused to it by prolonged traction by the bullet forceps this process may be left out. Its use mentioned in the foregoing was to assist in the collection of uncontaminated material for bacteriological purposes.

Some difficulty may be caused if the uterus is either anteflexed or retroflexed but this is readily counteracted by pressing the fundus upwards from the vagina and then introducing the instrument. In cases of anteflexion it is advisable to get the nurse to place her hand flat on the patient's abdomen immediately above the symphysis to keep the uterus erect, otherwise the anterior wall may be entirely missed by the curette. In a few cases to overcome this difficulty the bullet forceps must be used but it is rarely necessary.

Having passed the curette methodically round the walls of the uterus from fundus to internal os, the cornua are explored and finally a sweep is made with the instrument across the fundus from cornu to cornu and it is often surprising to find how much material is removed from this position.

Curetting should be continued until the firm resistant tissue of the uterine wall is felt and this, though

perfectly smooth, gives a rough sensation conveyed along the instrument to the hand.

There is usually very little haemorrhage during or after the operation. Uterine contractions are usually remarkably good and are increased by the use of the hot douche. Those cases in which haemorrhage occurred were ones in which the pyrexia had been noted late in the puerperium and in which Sub-involution was associated.

The material removed was occasionally scanty, but where any considerable infection had occurred there was usually a large quantity, consisting of decidua, membranous fragments, blood clot, and in some cases, portions of placental tissue.

Further Treatment.

As the tables shew many cases required none, as the temperature fell to normal and remained so. In those cases however, where the pyrexia recurred on the evening following the curetting, a copious hot creolin uterine douche was given, and if there was hyperpyrexia with a rapid pulse, the cavity was plugged with Iodoform gauze at the conclusion of the administration of the douche. In doing this the bullet forceps had to be used to draw the cervix down and a Sims' speculum protects the vaginal wall from friction. In introducing the gauze, Chrobak's plugging forceps are very useful, and will enable the plug to be applied much more compactly than any other means.

The gauze was in most cases removed next day, and

after a douche a fresh quantity introduced if necessary. In some cases it was not touched for 36 or 48 hours.

The feeding of the patient was attended to with great care. Fluid nourishment was given at short intervals and in as large quantities as she could tolerate, together with a free supply of alcohol in the form of whiskey in varying quantities of from 3 ounces to twelve ounces in the 24 hours. In one case nearly double this quantity was given for two weeks without any sign of intoxication being evident.

Few drugs were used. Perchloride of Iron and Strychnine and occasionally Salol in pill form. But the main reliance was placed in local antisepsis, stimulants and feeding.

In none of these cases was antistreptococcic serum used as we had used it in a considerable number of cases in previous years and had no cause to be anything but dissatisfied with the results obtained, and taking into consideration the costliness of this form of treatment its use was not again attempted.

Micro-organisms.

Coming now to the result of the microscopic examinations, the following is the result obtained in the list of cases.

Streptococci were found in	72	cases.
Staphylococci	24	,,
Pneumococci	17	,,
Bacilli (undifferentiated)	15	,,
Gonococci	14	,,
Bacillus Coli	13	,,
Diplococci	10	,,
Micrococci	6	,,
No organism	15	,,
Total	186	,,

As is seen this does not correspond to the total of the cases tabulated. The discrepancy arises from the fact that in case of multiple infection the various organisms are counted separately under their special headings.

1. Streptococci.

In agreement with the results obtained by all others I have been able to find, this organism was found in a much larger number of cases than any other and the percentage here amounts to 56.

It assumed somewhat different forms in different cases. In some smears a very large number of chains containing many cocci in each were seen, while in others the chains were few, short, and difficult to find. In size too the cocci differed very considerably, some being large, staining deeply, whilst others were extremely small and somewhat difficult to recognise on account of the faint stain they took. In several preparations the cocci were arranged in diplo form, in perfect chains of some length. In one of these the culture gave the same form of growth, whilst in others a typical unicellular chain resulted.

It was a matter of some interest to note that a considerable difference in result as regards the length of the chains and the number of organisms found occurred if the examination was not made at once, for it was found during the summer that a preparation made some hours after the collection of the material contained many more than could be found at an early examination from the same tube. Doubtless the material in the tube formed an excellent culture medium.

In 35 cases this organism was found alone, while in 37 it occurred as follows.

Combined with:-

Staphylococci	10 times	Gonococci	4
Diplococci	4 ,,	Staphylo. & Bacil.	3
Pneumococci	4 ,,	Staphylo. & Gono.	2
Bacilli	5 ,,	Gono. & Bacil.	2
		Bacil. Coli.	4

A. Pure Infection.

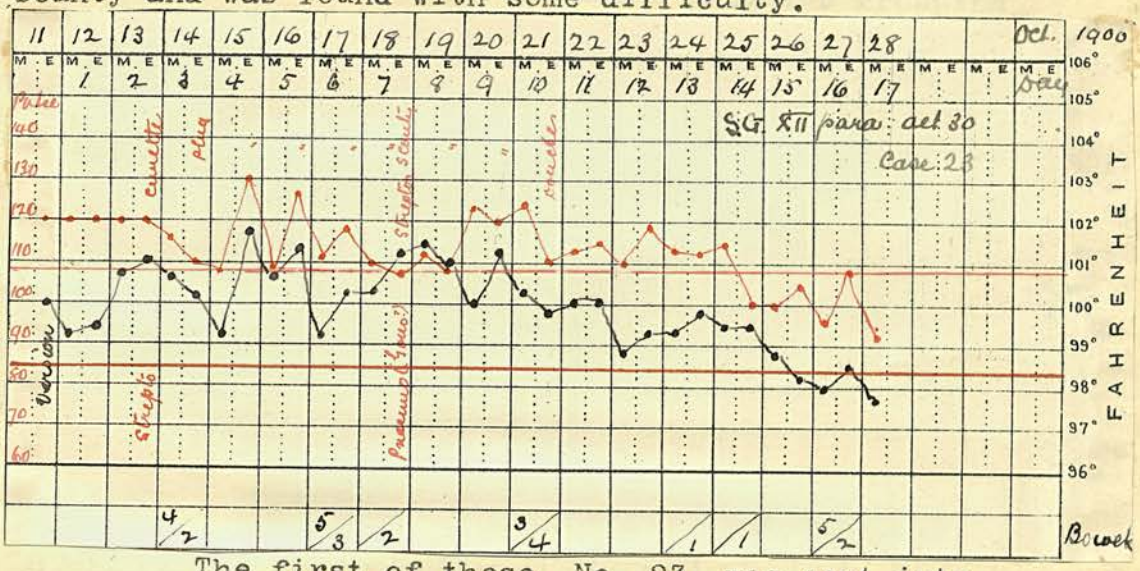
Of these there were 38 cases, 13 of which occurred in the hospital and 22 in the Extern Maternity. Taking into account that some at least of the hospital cases are sent in on account of some difficulty or danger and after frequent examinations, it will be noted that there is some difference in proportion. But in the Extern Department the patients are in most cases without any nursing attention, have unclean surroundings and improper or insufficient food, and are in addition, in many cases, subjected to frequent vaginal examinations.

In passing I should like to mention the fact, that in the hospital extremely few of the patients are examined vaginally at all, the external examination being considered sufficient unless a very definite indication occurs.

Hospital Cases.

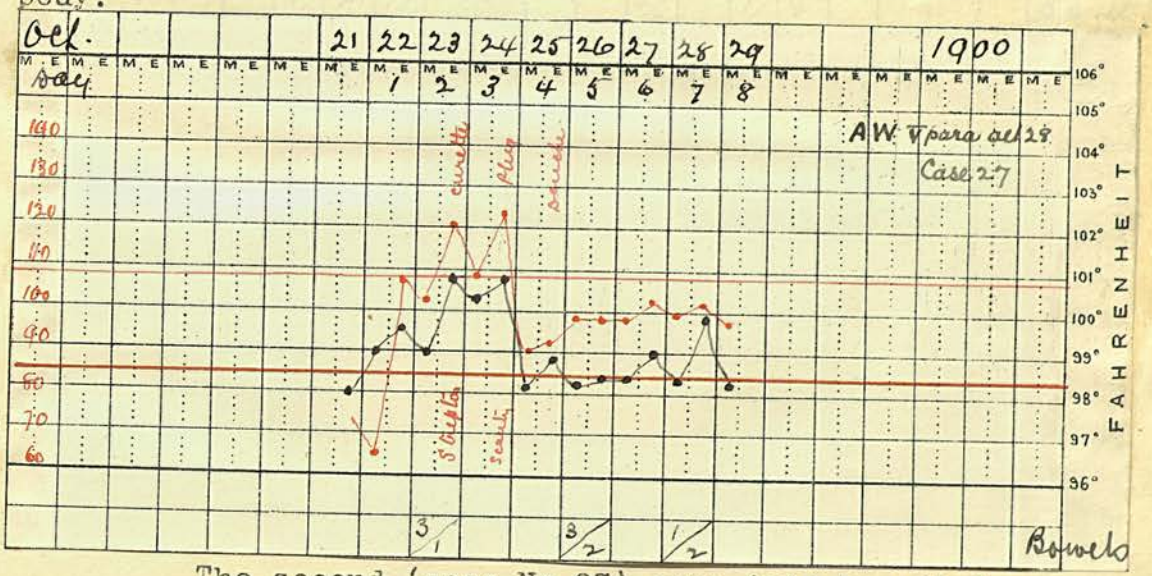
Vide table Nos. 8, 23, 27, 28, 32, 34, 39, 42, 47, 52, 56, 74, 114, It will be seen that in only

four did the temperature remain above normal level after the initial curetting or was the puerperium in any way interfered with. In the majority the organism was scanty and was found with some difficulty.

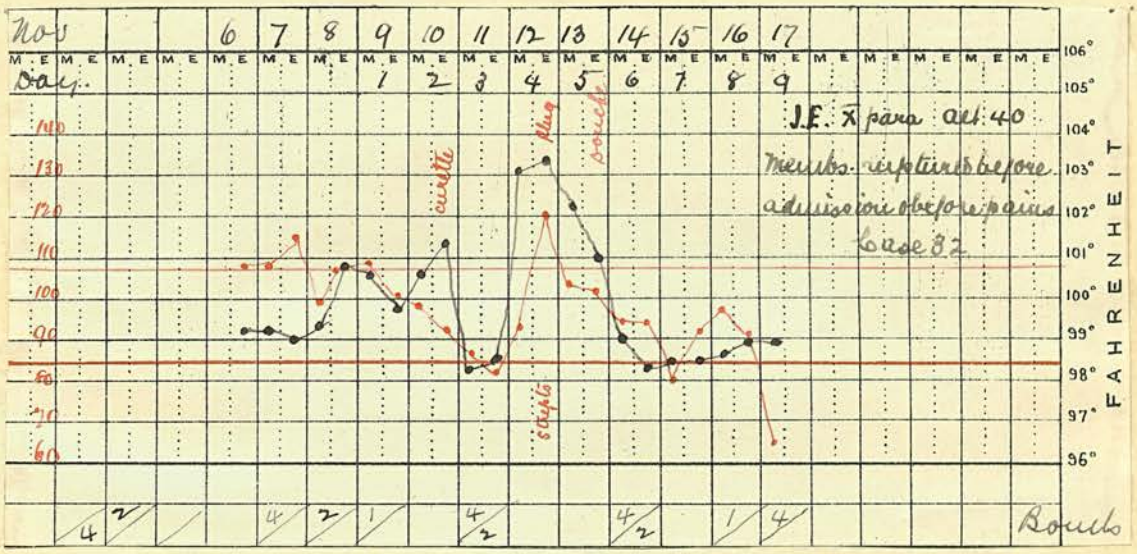


The first of these, No. 23, was sent into hospital by a midwife, (who had some time previously attended Case 4) for severe haemorrhage occurring at the 8th month and due to Placenta Praevia. Both temperature and pulse were high on admission and the patient was exsanguine. As soon as possible Podalic Version was performed, the placenta which was central being perforated. Delivery was completed by natural efforts six hours later. The next day with a temperature of 101°F the uterus was curetted and some Streptococci found in the scrapings. The temperature fell to normal and remained so next day but rose to 101.8 on the fourth evening when the uterus, after a douche, was plugged with Iodoform gauze. This was repeated daily until the 9th day, after which the gauze was removed and an

uninterrupted convalescence ensued. An interesting point in this case was the fact that a smear made on the 7th day shewed the presence of Pneumococci which had not been previously found and a Bacillus grouping like Coli and which did not stain by Gram's stain. Though this patient had a slight cough no auscultatory phenomena were detected. The streptococci found now with difficulty, were extremely few and the cocci appeared shrivelled. As she was a XII para no doubt the bacilli gained entrance through want of perineal body.



The second (case No.27) came into hospital under the effects of alcohol. She delivered herself shortly after of a living 8 months' child. A rapid rise of temperature occurred on the second evening to 100.8 F. The uterus was then curetted, and on the following night with similar record, Iodoform gauze was packed into the cavity. After this the convalescence was uneventful.



Case No.32 was admitted with membranes ruptured without pains. She remained in hospital for 3 days before the onset of labour which was short. Before its onset the thermometer registered 100.8. This fell to normal but rose again to 101.4 on the second evening when the curette was used. The organism was found on the fourth day when the patient had a rigor followed by a rise of temperature to 103. The uterus was thereupon plugged and a rapid recovery occurred. The Streptococci were here small and difficult to find.

Case 42 will be recorded under Gonococci.

In the whole number of these hospital cases the pulse rate was high from the onset, and in only one could any odour be detected in the lochia.

The remaining cases are fully described in the table.

B. Extern Maternity Department.

Cases 4, 14, 17, 26, 36, 38, 45, 50, 55, 68, 69, 71, 72, 82, 89, 97, 99, 107, 110, 111, 112, 113. The first of these, No.4, terminated fatally. It does not appear in the Rotunda Reports because it was attended privately and the history is at least suggestive.

The patient was a young primipara and was attended in her confinement by the midwife previously mentioned. This midwife, who was at the period of the menopause, was suffering from severe and irregular haemorrhages. She was advised to place herself under treatment and was cautioned against attending patients in labour. However, she rose from a sick bed to attend this patient. On the fourth day the temperature was 104.6 and pulse 132 and the nurse obtained aid. On the removal of a portion of membrane the condition improved for 36 hours when the temperature rose once more to 103.4.

A smear now made shewed the largest number of Streptococci I have seen in any of these cases. The cocci were of some size and the chains in many cases of considerable length and scattered thickly over the whole field. The patient became delirious shortly after complaining of pains in the head. There was every evidence of acute peritonitis before death.

The only other fatal case under this heading was No.107. This woman was phthisical. She was delivered by forceps on account of delay and the placenta

required manual removal. On the fourth day Streptococci were found only with great difficulty, the temperature being 100.2. The pulse and temperature continued to rise with increasing dyspnoea, cyanosis and lung signs. Diarrhoea became uncontrollable and bed sores formed. She died on the 10th day.

Cultures made from this specimen shewed Streptos which were non-pathogenic. They were in the diplo form and liquefied gelatine. So it may be safely said that the patient died of phthisis and not sepsis.

The larger number of these Extern cases gave a good deal of trouble with prolonged treatment. Only 6 out of the 22 recovered after the initial curetting only, and as the table shews, the first rise of temperature reported was one of hyperpyrexia. It is difficult to exclude the possibility of a report of the first rise of temperature not having been made, and this would go a long way towards explaining the severity of the cases and the prolonged treatment required if taken in connection with the want of nursing and cleanliness I have previously mentioned.

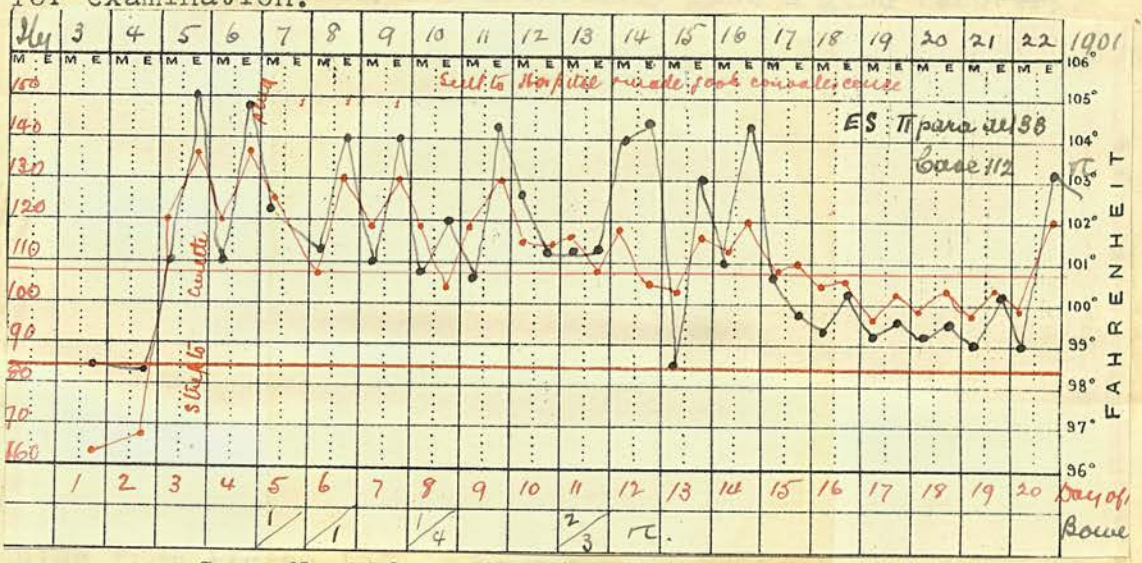
In the most severe of the remaining 15 cases both child and placenta were born before the student arrived (vide No.26), so that no interference of any sort was made. In this case the plugging of the uterus was continued for 11 days after the initial curetting, and it was of some interest to observe the gradual diminution in number and size of the organism until just before

Case 112

Shewing Chains of Streptococci

the cessation of the pyrexia extremely few were found, and these inside the leucocytes which were evidently destroying them.

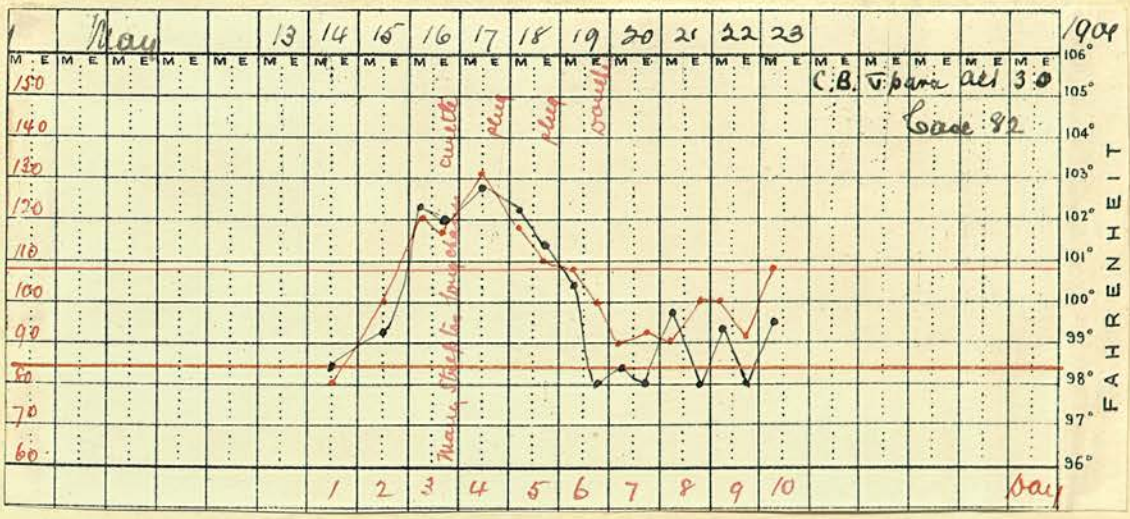
This fact was observed in a considerable number of cases, a small scraping being easily obtained for examination.



Case No.112. As will be seen by consulting the table, this was a twin pregnancy. Why the second child was stillborn, I cannot say, but from the fact that a large portion of placenta was left in the uterus, and that post partum haemorrhage occurred and was not reported at the time, a surmise may be made. The student afterwards admitted having expressed the placenta. The temperature being 105 with a pulse of 136 on the third day the placental tissue was removed with the curette, and large numbers of streptococci were found. The cocci in many of the chains were dividing and the organism was evidently very active. Next evening

with hyperpyrexia the uterus was plugged with Iodoform gauze, and as improvement was very slow and the surroundings of the patient bad, she was sent into hospital. There with good feeding and nursing the pulse began to come down, and though there was an intermittent temperature for some time, she eventually made a good recovery. The temperature recorded on the chart on the 20th day was the last one of pyrexia. In this case the patient was in a very bad condition to resist an infection to start with, and there must be some doubts as to whether pyrexia was reported on its first occurrence, so that probably the organism had some start before it was attacked. The condition of the pelvic organs was very good when the patient was discharged from hospital.

Amongst the remainder of these cases, the maximum temperature ranged from 100.8 to 104.4 with pulse from 116 to 160. In only one of them was there any operative treatment during labour, and this patient had old sloughing ulcers on the legs.



B. Mixed Streptococcic Infection.

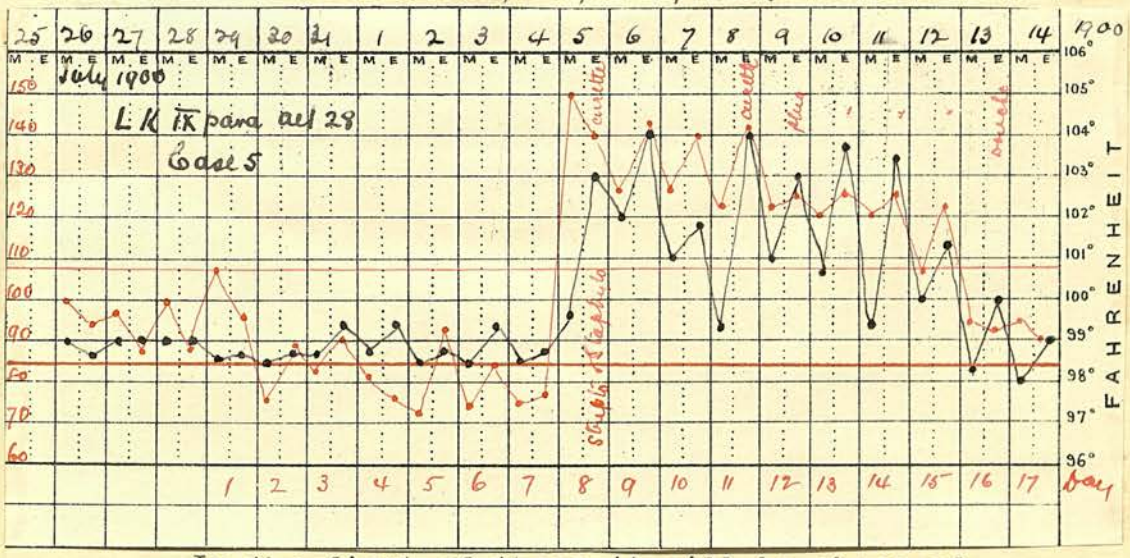
There were altogether 38 of these, 14 being in hospital cases and 24 in their own homes.

Hospital Cases.

Nos. 5, 6, 13, 20, 43, 44, 46, 48, 59, 77, 91, 103, 129, 130.

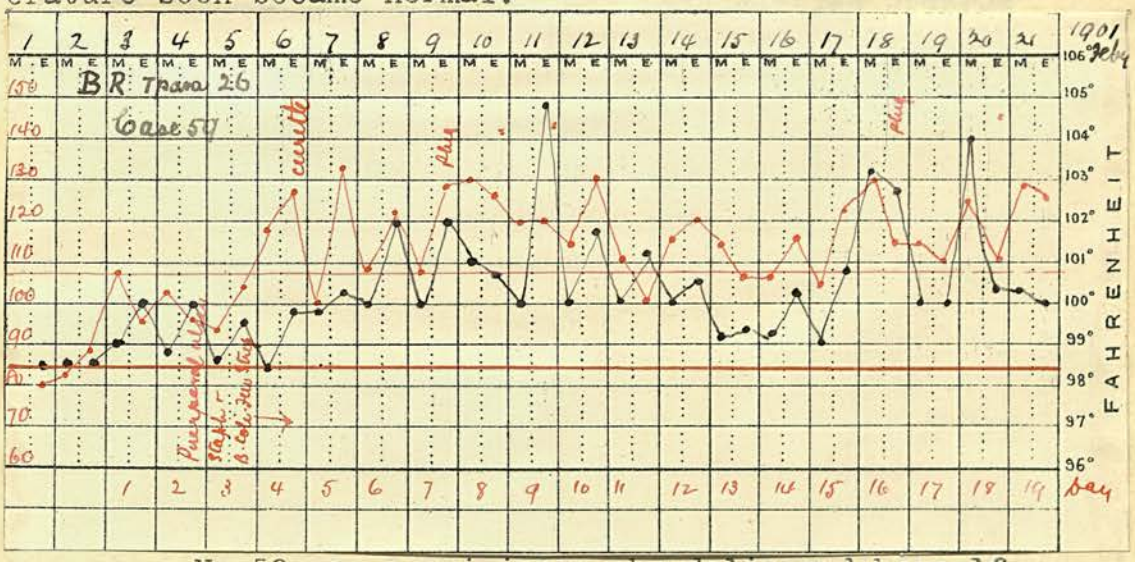
Only 4 of this number gave any trouble, and in these the Streptococci either predominated or were numerous, and on the other hand, in the cases which became normal after the initial treatment, they were few and difficult to find, so that it may be safely said, that the severity of the attack was proportionate to the amount of this germ.

The four cases were Nos. 5, 59, 103, 130.



In the first of these it will be observed that following an Induced labour for repeated severe haemorrhages and the removal of an adherent placenta, there was a normal convalescence for seven days. On

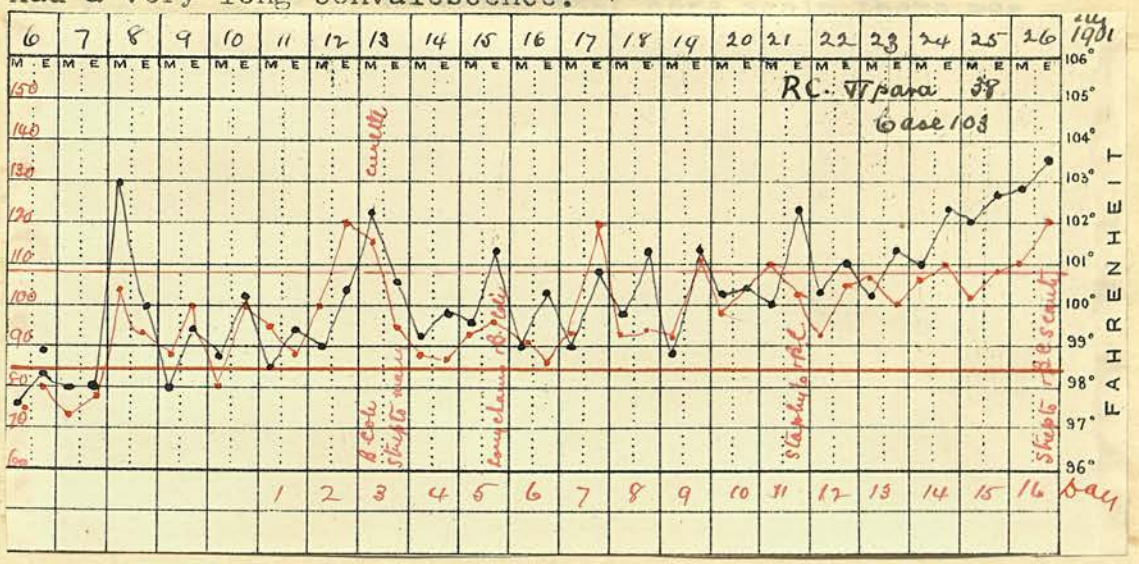
the morning of the eighth, with a still normal temperature, the pulse suddenly rose from 75 to 150 and was followed in the evening by a temperature of 103. Little but blood clot was removed by the curette, but in the fragments many Streptococci and some Staphylococci were found. No explanation can be given as to how the infection occurred, but as it was so long afterwards it is hardly likely to have originated from manipulations at the delivery. The uterus was douched and plugged daily, and on the 7th day of pyrexia extremely few Streptococci and a few Staphylococci were found. After this the temperature soon became normal.

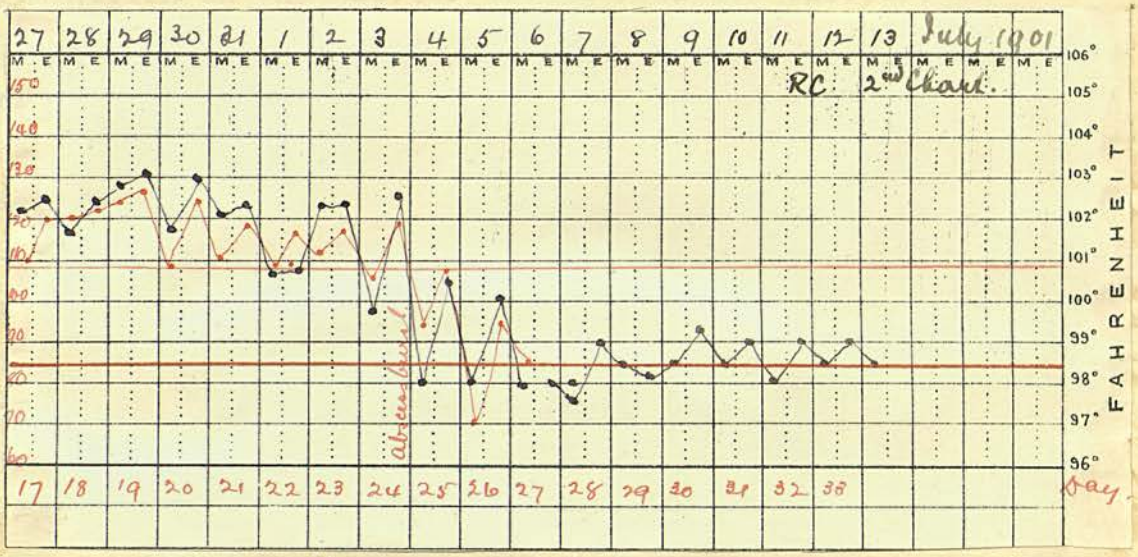


No.59 was a primipara who delivered herself and who had a deep perineal laceration. The sutures giving way, some ulceration took place on the raw surface. Here again the pulse was the first indication of infection. On the fourth day, as the lochia was offensive, though no temperature had yet manifested

itself, a vaginal douche was given, and finding the cervix patulous and the uterus large, the cavity was explored with Rheinstädter's curette and some foetid clots and membrane removed. The scraping shewed a large number of Bacilli, probably Coli, of various sizes, and a few Streptococci and Staphylococci. A prolonged convalescence took place though with the temperature still high; a scraping shewed an absence of germs in the uterus. Here, doubtless, the source of the infection was the perineal ulceration from which the organisms gained admission to the circulation. The absence of germs in the uterus at the second examination proved that they had not been carried upwards by the manipulation made at the removal of the clot and membranes.

The odour was without doubt due to the presence of the bacilli. The pelvis was free from inflammatory masses when the patient left the hospital, though she had a very long convalescence.





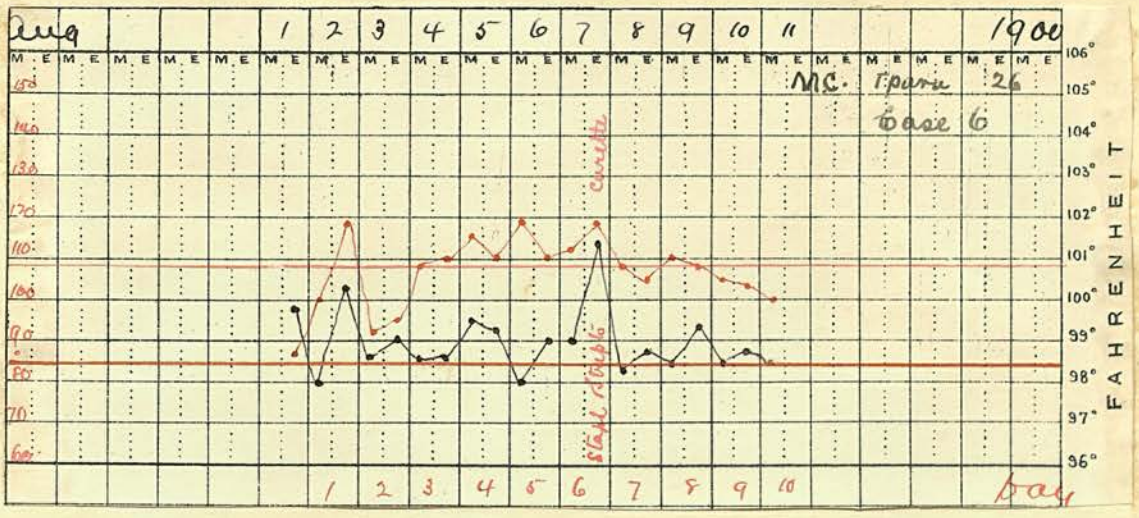
Case 103 was one of Induced labour for pelvic contraction, her previous labours having terminated instrumentally or by craniotomy. From some unascertained cause this patient had a rise of temperature to 103 on the morning after the passage of the bougies, but this at once fell and remained normal for five days, when it rose again on the third day after labour was terminated to 102 . It will be noted that here again there was a preliminary increase in pulse rate.

There was considerable difficulty at the confinement on account of the relative size of the child. From her previcus difficult labours the perineum had entirely disappeared, consequently it was not surprising to find many Bacilli Coli in the material removed. In addition there were a considerable number of Streptococci arranged in diplo form and in long chains.

Two evenings later, a preparation shewed a

diminution in the Bacilli with a relative increase in Streptococci. Till the 11th day the temperature remained at or about 101 . It then rose to 102.2 and clumps of Staphylococci were found with some Coli. Again, five days later, Streptococci were found and a temperature of 103.6. It remained high for eight days after this. She had been complaining for some days of severe pain on moving, referred to the region of the Symphysis, and on this day a large quantity of pus discharged immediately below the Clitoris. This contained large numbers of Streptococci. Notwithstanding, with the escape of the pus a rapid recovery took place as the Chart shews. Pain had entirely ceased on movement and the patient was able to walk about without trouble. There was no rigor throughout the case.

My notes of Case 130 are incomplete, but the preceding are sufficient to shew the result of Streptococcic infection, alone or mixed with a considerable number of this germ.

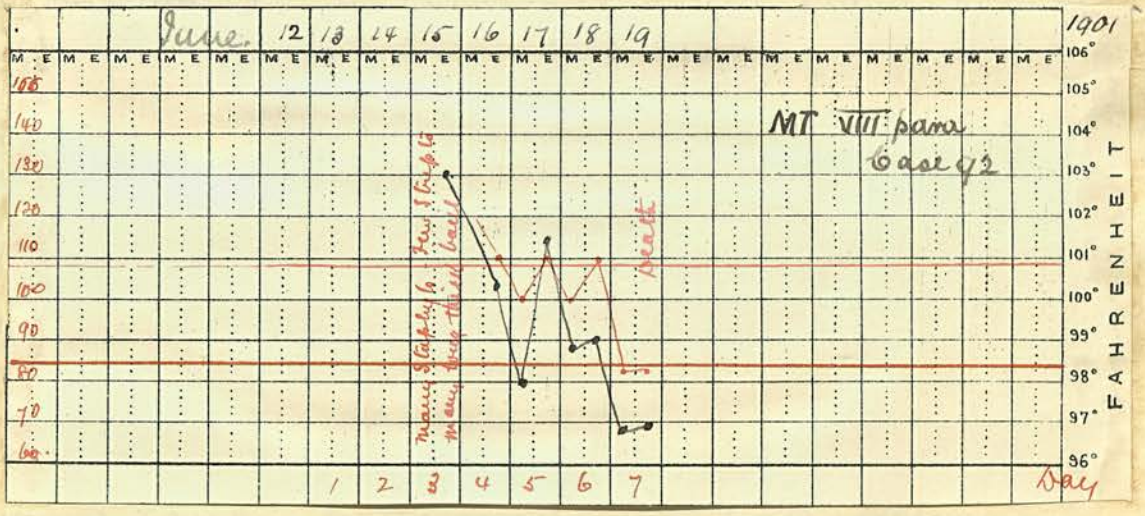


Nos. 3, 11, 21, 31, 74, 70, 73, 76, 78, 79, 80, 89, 83, 84, 86, 87, 92, 94, 98, 104, 106, 117, 122. 56,

B. Extern Maternity Department.

Amongst the 24 cases of mixed Streptococcic infection here 13 were severe, thus having a very close relative correspondence to the result of pure infection in the two departments.

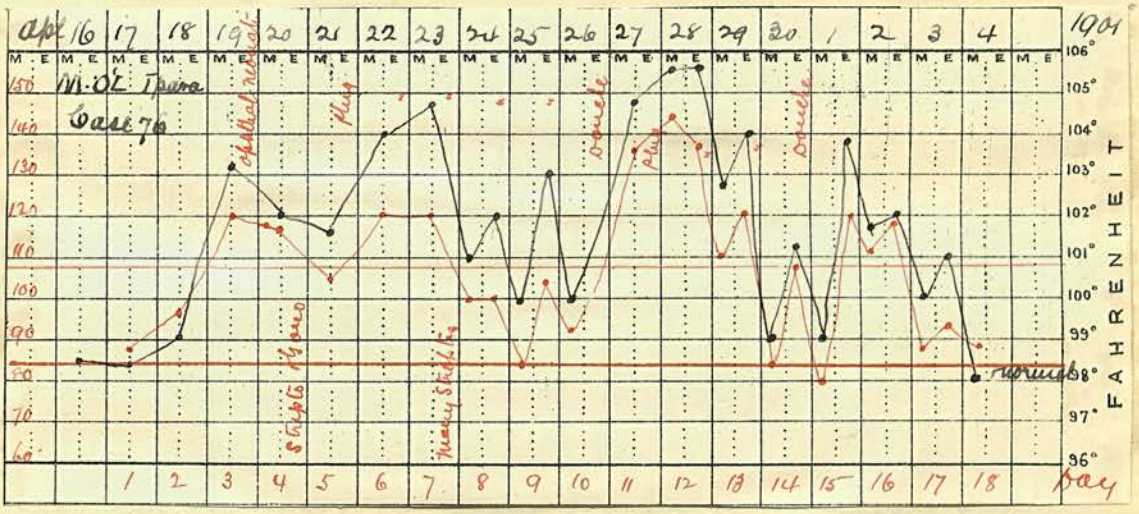
In the few cases in which there was only the initial rise of temperature only few organisms were found.



There was one death (No.92). The Chart is a curious one, and what part the organism played is somewhat difficult to determine. The patient was a delicate woman who had a severe Antepartum Accidental Haemorrhage. The first record of pyrexia obtained was on the third day and it was 103 . The lochia was offensive and some blood clot was removed with a few fragments containing many Staphylococci and long thick

bacilli and a few Streptococci. No injury was found and great care was taken in carrying out the treatment. Next day the temperature was within normal lines, and when she died on the 7th day of puerperium, it was sub-normal. Unfortunately, no post-mortem examination was obtainable.

Amongst the remainder, treatment was more prolonged than in the hospital cases, probably for reasons before given.



Case 76 occurred in a primipara who had a normal labour. In the scraping were found besides Streptococci, Gonococci and Diplococci, the last being scanty. From the fact that the temperature remained high for so long a time with accompanying quick pulse, it is probable that the first named organism caused the more serious part of the infection. A point of some interest was the fact that the infant developed gonorrhoeal ophthalmia on the same day that pyrexia first appeared.

Three patients refused to allow treatment after the first. Of these I am unable to say what became of case 31. But case 83 was admitted to a General Hospital and will be mentioned again under Pneumococci. No. 80 was also taken into a General Hospital with Peritonitis and had a very severe illness. In this case there were many Streptococci present, and some days elapsed between the time she passed out of our hands and her admission into the hospital, and it is a significant fact that it is the only case in the whole list in which septic peritonitis and parametritis (which she also had) occurred, for so far as the microscope shewed, the infection was not worse at the commencement than in many others which made good recoveries in comparatively short periods.

It will be observed that throughout the series of Streptococcic infection there is a wonderful correspondence between pulse and temperature, which in every case ran together, the pulse proving an excellent guide for the latter.

Staphylococci.

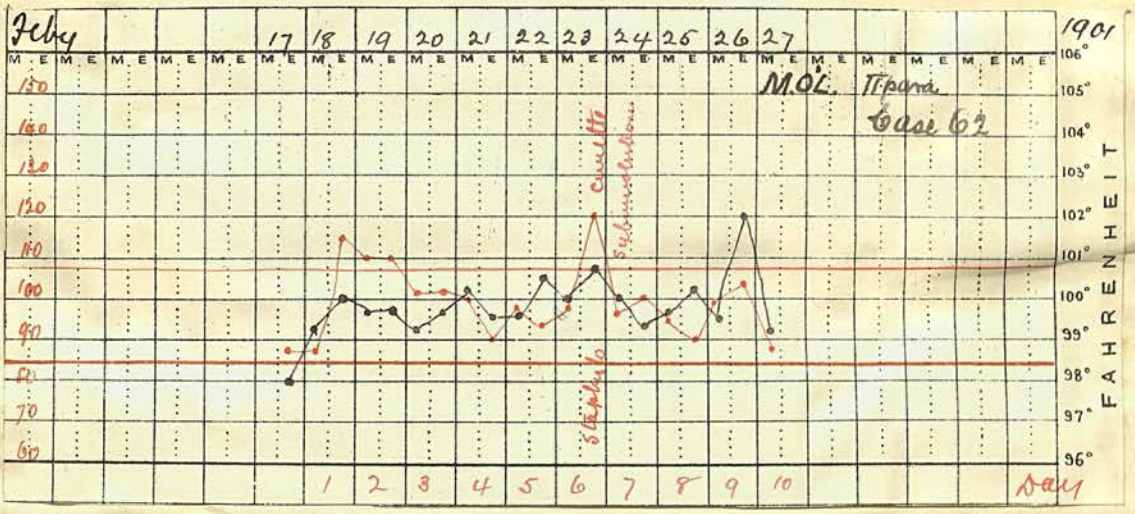
A. Pure.

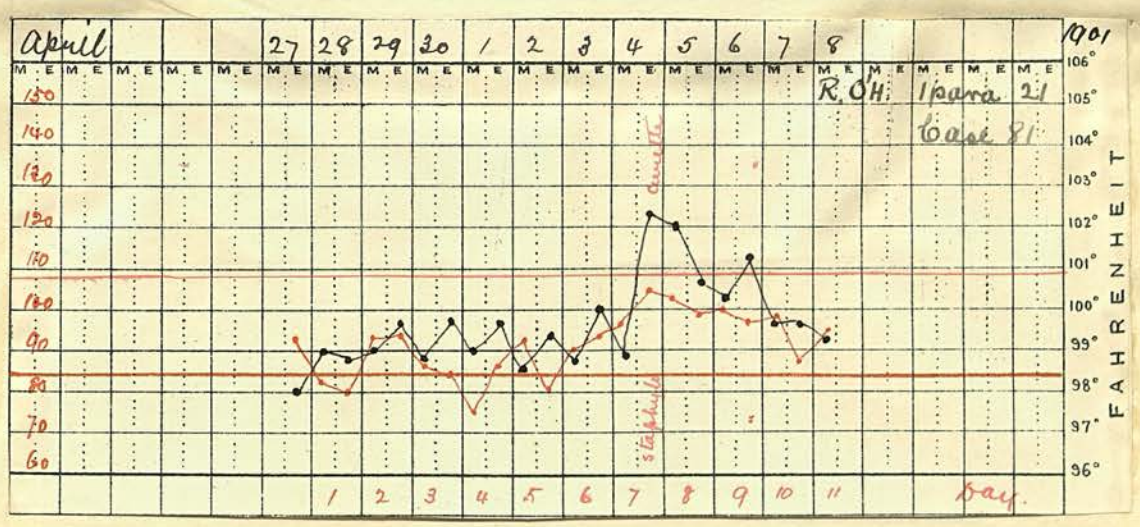
The observation has been made by other observers that Staphylococcic infection occurs rarely and is mild, and this corresponds with these investigations, for the organism was found pure in only 4 cases (Nos.1, 62, 81, 108), and in each case the effect produced was exceed-

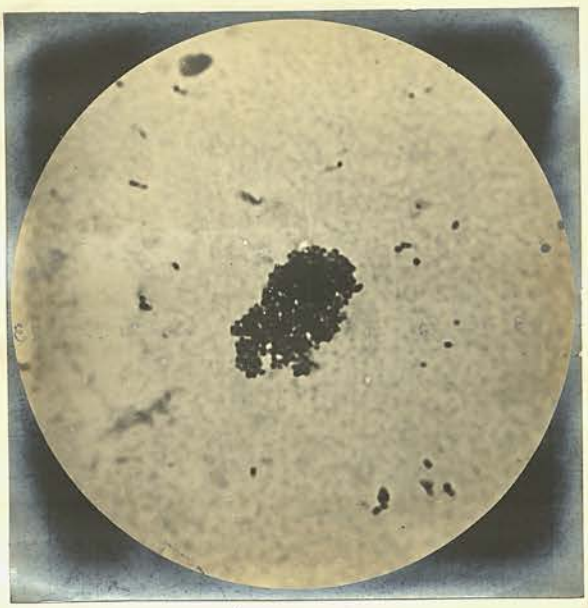
ingly slight, a rise of temperature being observed on only one occasion.

The two Charts appended are interesting in that they shew a divergence between pulse and temperature unlike that seen in any of the foregoing.

These four cases all occurred in hospital patients.







Case 79

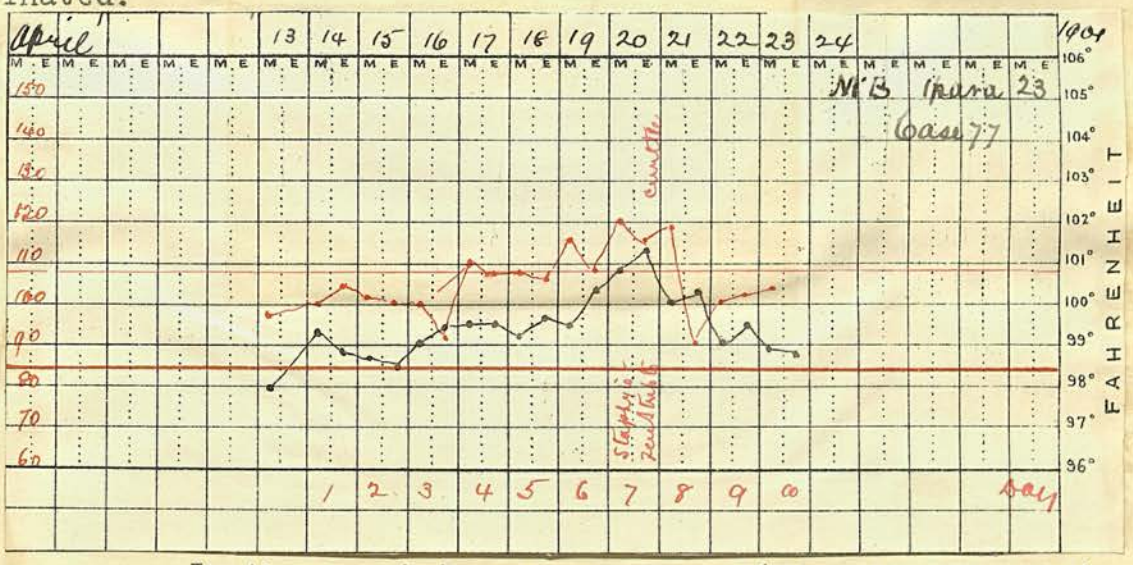
Group of Staphylococci from Case 79.

B. Mixed Infection.

These cases collected from the two Maternity Departments are as follows:- 3, 5, 6, 13, 18, 20, 59, 66, 67, 73, 77, 79, 84, 86, 87, 90, 92, 117, 124, 130. They occurred in combination with

Streptococci	9 Cases	Bacilli	3 Cases
Streptococci & Bacilli	3 ,,	Pneumococci	1 ,,
,, & Gonococci	2 ,,	Gonococci	1 ,,
		Bacillus Coli	1 ,,

Those in which the other germ was the Streptococcus have already been mentioned, and I can only repeat, that in those cases which were serious, the latter germ predominated.



In the remaining cases, three (Nos. 59, 92, 124) were severe. The first two had a mixed infection of Staphylococci, Streptococci and Bacilli, one a primipara and the other a multipara, the first having a normal labour and the second an Accidental Haemorrhage. The third case who was, like the last, in the Extern Depart-

ment and had an Accidental Haemorrhage but delivered herself, was in her tenth pregnancy. In this case there was only a thick bacillus which often appeared in chain formation. This is the only case in which a doubt arises as to the absence of virulence of the Staphylococci.

No endeavour was made to ascertain the variety of the Staphylococci present.

In a fair number of these cases there was some foetor with the lochia, and in this respect they differed from the Streptococcic cases.

Pneumococci.

Very considerable interest attaches to this group because it was found comparatively frequently and always during the winter months, or at any rate, in none of the cases here recorded, was it found during the warm weather of summer.

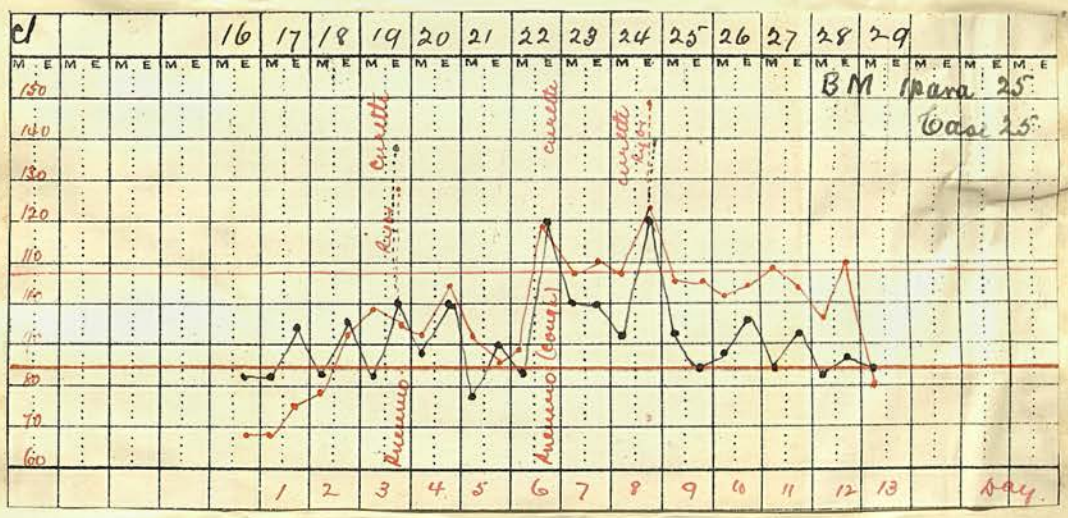
In each case the specimen was very carefully examined, repeated smear preparations being made. In one of these, in each case after Gram's stain had been used, one half of the smear was stained with Fuchsin as a check. In most of the cases the organism was very readily recognised, and in several of them, some pulmonary complication followed some days after the diplococcus had been found in the uterus. In two cases the patient had been suffering from pulmonary disease for a considerable

Pneumococci shewing Capsules.

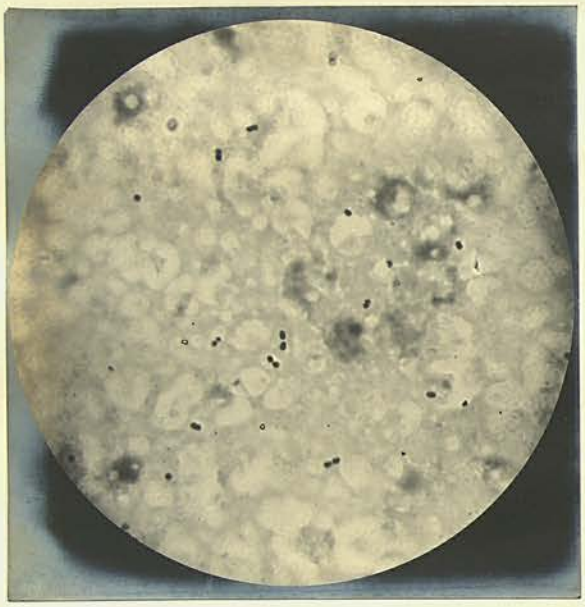
time before. In a few no lung condition could be detected at any time.

A. Pure Infection.

Nos. 2, 24, 25, 30, 33, 35, 53, 61, 65, (only 3 of which were in the hospital). Of the first two of these nine cases I can say no more than is to be seen on the table.



No. 25 was curetted for some foetor in the lochia on the third evening though the temperature was normal, and a piece of membrane removed. A large number of diplococci were found, but though very similar to those of pneumonia, we could not be certain. On the 6th evening however, when she had her first pyrexia, a second exploration of the uterine cavity gave undoubted diplococci of pneumonia, shewing that we had to deal with this germ in the first instance. On this day too, the patient was troubled with a cough, which continued without any marked auscultatory signs for a couple of days, when the temperature became normal and remained so. A third



Case 33

Showing Capsules of Pneumococci

examination on the last night of temperature again shewed the organism.

In this case there were three days between the finding of the diplococcus in the uterus and the onset of lung symptoms. The pulse line is of some interest.

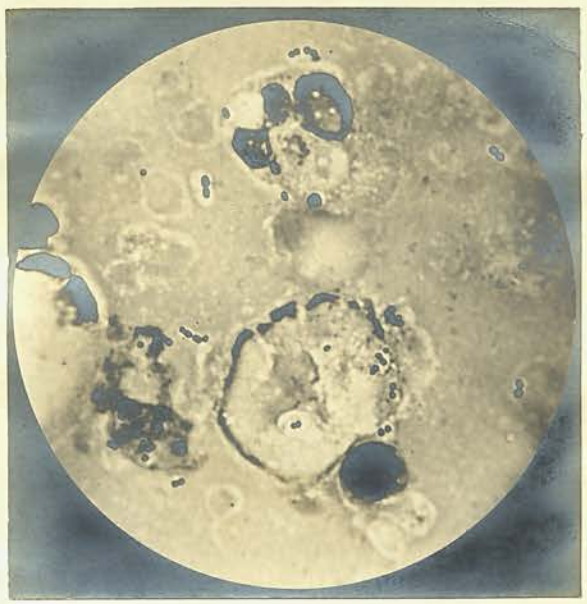
For Case 30 I have unfortunately no chart, as it occurred in the Extern Department, but in it the Physical signs in the lungs were evident at the time the microscopic examination was made, and the return to normal took place rapidly.

In Case 35 the initial rise of temperature occurred on the second day, and a large number of diplococci staining by Gram's method and with definite rings (capsules) were found. Coming to normal, the temperature rose suddenly on the fifth day with the onset of puerperal mania, and the pneumococci were again found, grouped as on the first occasion. Two days later, cough and expectoration were observed, and the sputum contained many of the same organisms. Convalescence was somewhat prolonged.

With No. 53 the cough had been present for some time before labour, and there were evident physical signs in the lungs. Convalescence was prolonged.

Case 61 was a very similar one to the last, only the cough was of longer duration. The pneumococci occurred both in groups and in chain formation.

In the last case (No. 65) the patient had had an attack of Influenza and following it a cough. She



Case 61

Showing encapsuled capsules to pneumococci

had Herpes labialis and dulness at the bases of both lungs. There was hyperpyrexia for some days, when the patient had a crisis and a satisfactory convalescence.

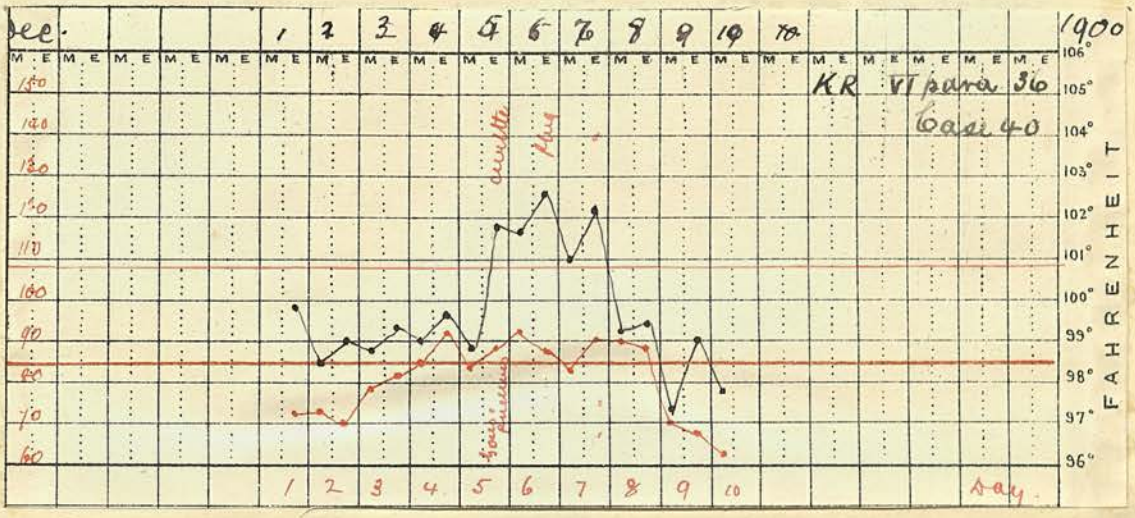
In all these cases the lochia was very thick and adhesive, and was washed from the external genitals with difficulty. No odour was observed and all the patients recovered. The application of Iodoform gauze to the cavity of the uterus was continued throughout, with suitable treatment for the lung conditions where they were observed.

B. Mixed Infection.

With	Streptococci	cases No.23,61,78,83.
	Staphylococci	,, ,, 18
	Bacillus Coli	,, ,, 22
	Gonococci	,, ,, 40
	Bacillus	,, ,, 123

In Case 22 the auscultatory signs of Bronchitis were readily detected two days after finding the organism, together with some fine crepitations at the bases of the lungs. At this time the sputum contained the same germ.

Case 23 is recorded under the heading of Pure Streptococcic infection because nothing but that germ was found at first, the pneumococcus being seen only 5 days after the initial rise of temperature. At that period it was found alone. The Chart may be seen under the first heading.



This Chart of Case 40 is very interesting from the fact that with so high a temperature the pulse should run along such a low line. The patient had been under the care of a practitioner who sent her in after she had lost a considerable quantity of blood from a placenta praevia. Delivery occurred directly on her admission and without interference. Besides the Gonococci there were some small bacilli, probably Coli. She made a good recovery.

Case 78 had the physical signs of Bronchitis on the night of her pyrexia but was better next day and made a good recovery.

No. 83 with pyrexia on the 3rd evening in her own home, had a considerable number of Streptococci in the specimen, some pneumococci, but then no lung symptoms. This patient refused further treatment and was some days later admitted to a General Hospital where she passed through a severe attack of pneumonia.

These cases are sufficient to shew that this germ is a not uncommon cause of morbidity in the lying-in woman and that it may produce prolonged symptoms and much delay convalescence.

That it is not a secondary infection following a septic pneumonia is shewn by the fact that in a considerable number of these cases it was found in the uterus at the commencement of the pyrexia and before any lung symptoms appeared.

The blood was not examined in any of the cases on account of the difficulty of obtaining a sufficient amount from the patients.

Bacillus Coli Communis.

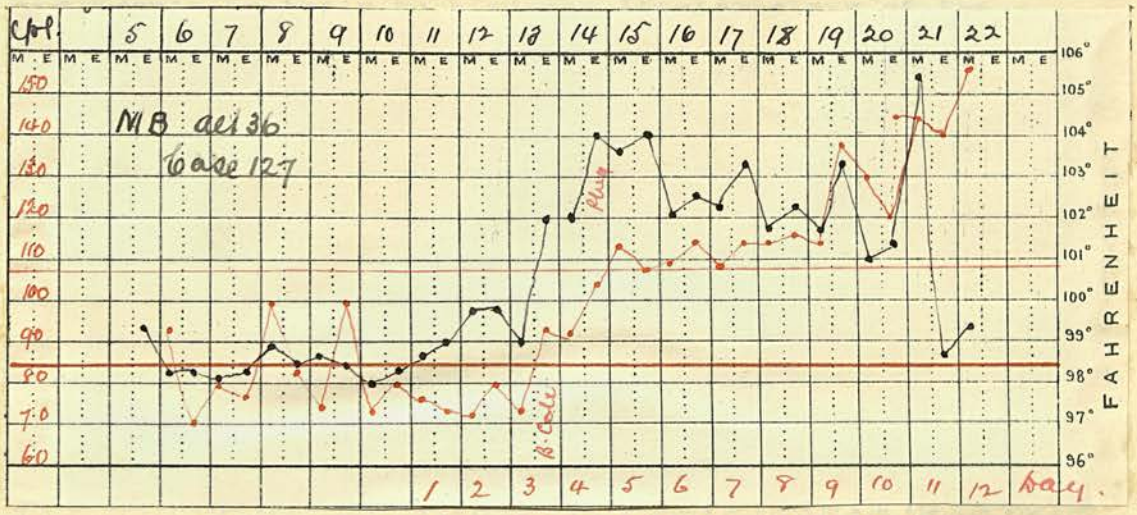
This organism was judged by its excessive motility, its occurrence in large groups inside the leucocytes as well as independently over the field and when stained by its grouping and shape.

In every case in which it was found the lochia was offensive. Indeed in one of the hospital cases the odour impregnated the whole ward, though without affecting the temperature of any of the other patients near her.

A. Pure Infection.

Cases 37, 57, 95, 116, 120, 127.

In the above 6 cases no other organism could be found and the last one died.

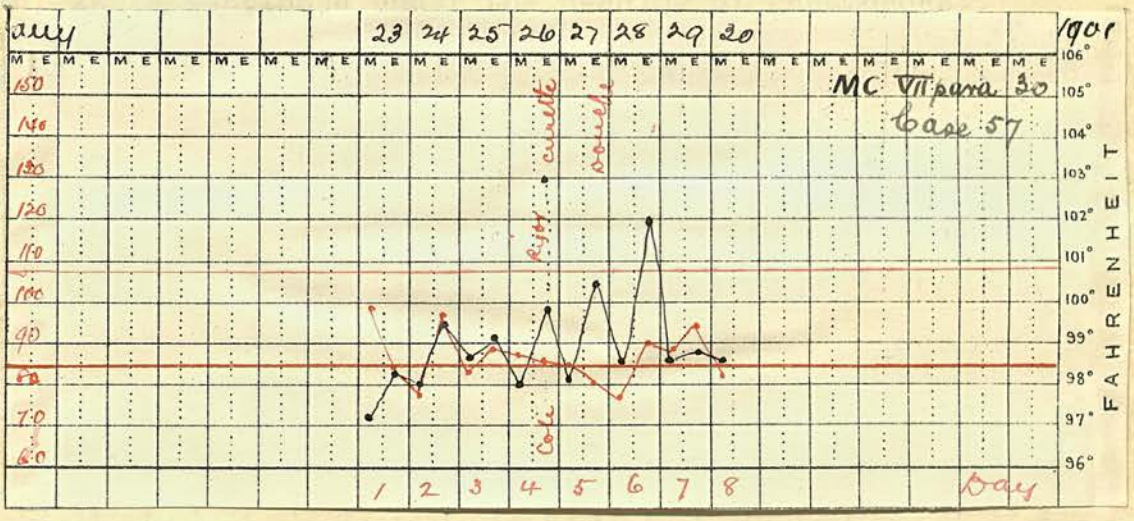


This (No. 127) was a patient with pelvic contraction, which had necessitated the performance of craniotomy on each of the four preceding pregnancies, and in the course of the deliveries, the perineum had been completely destroyed. Labour was in this case induced by the passage of bougies, but delivery did not follow for four days.

On the third day post partum, the temperature suddenly rose to 102 with pulse still slow, and nothing but the motile bacilli could be found then or at a subsequent examination a day or two later. From this date the pulse continued to rise steadily, the temperature at the same time remaining one of hyperpyrexia. Diarrhoea and vomiting began on the 6th day and later there was abdominal distension. The day before her death the patient had a rigor, with a further sudden rise of temperature to 105.4 . This fell next day, but the pulse ran up to 158 and she died soon after.

A case similar to this is reported by Menge and Krönig in their book on the "Bacteriology of the Female Genital Canal". The rise of pulse in this case is unlike that occurring in any of my other cases, for in all of these the pulse rate was low, with, in some instances, a very considerable elevation of temperature.

In all, with the exception of No. 57, the temperature returned to normal directly the uterus was curetted.



In this case it is interesting to compare the pulse line with the temperature, and I wish to draw particular attention to this fact, and also that of the foetor occurring in the lochia.

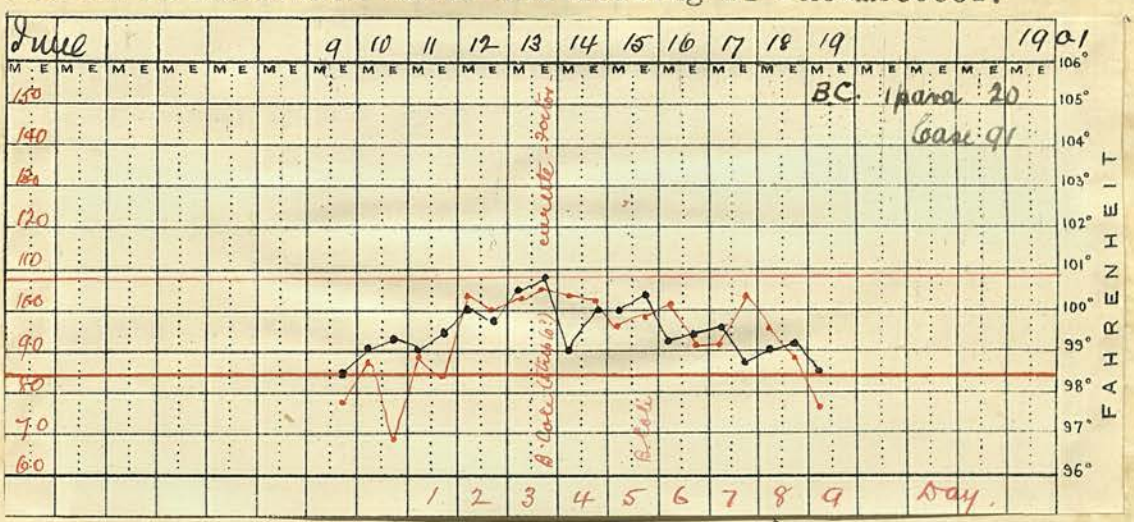
Mixed Infection.

The seven cases occurred as follows with:-

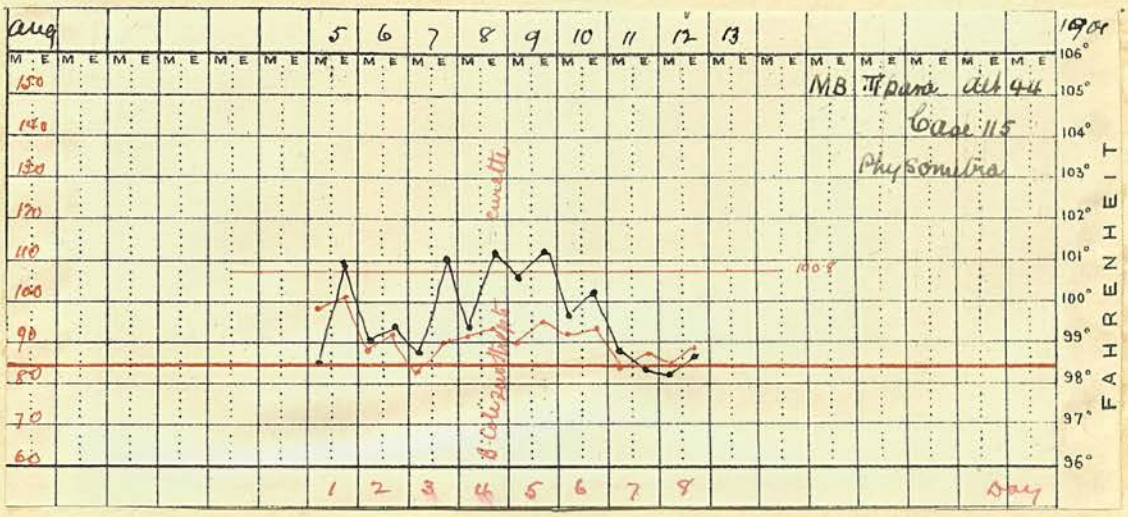
Streptococci	4 cases	(No.31,91,100,115).
Gonococci	1 ,,	(,, 7).
Pneumococci	1 ,,	(,, 22).
Staphylococci	1 ,,	(,, 90).

Here again the severity of the condition depended on the associated organism. The pulse in Strepto and Staphylo cases being highest, (31, 91). The Chart of the latter is appended. None of them gave cause for anxiety.

No. 22 is mentioned under the heading of Pneumococci.



Two were cases of Incomplete Abortion.



Case 115. This patient, mentally deficient, was admitted in a very dirty condition and with green foul-smelling discharge from the vagina, which had produced excoriation of the external genitals and inner portions of the thighs. The bladder contained a large quantity of offensive dark-coloured urine. The foetal head, with scalp folded over over-lapping bones, was on the perineum. On applying the Forceps, a quantity of very offensive gas and green fluid escaped, and much more of the same after the extraction of the child. There was considerable bruising of the vagina from the prolonged pressure of the foetal head, and in one place 3 sutures had to be introduced. The odour from this patient on the 4th evening was excessively offensive. She made an excellent recovery, and the Chart is an interesting one.

Bacilli.

These were organisms of various size, shape and arrangement. Some were very thick and short, others of considerable length; some arranged in chains and others scattered. Motility was not observed. As their grouping and shape differed from the Coli, they are under a separate heading.

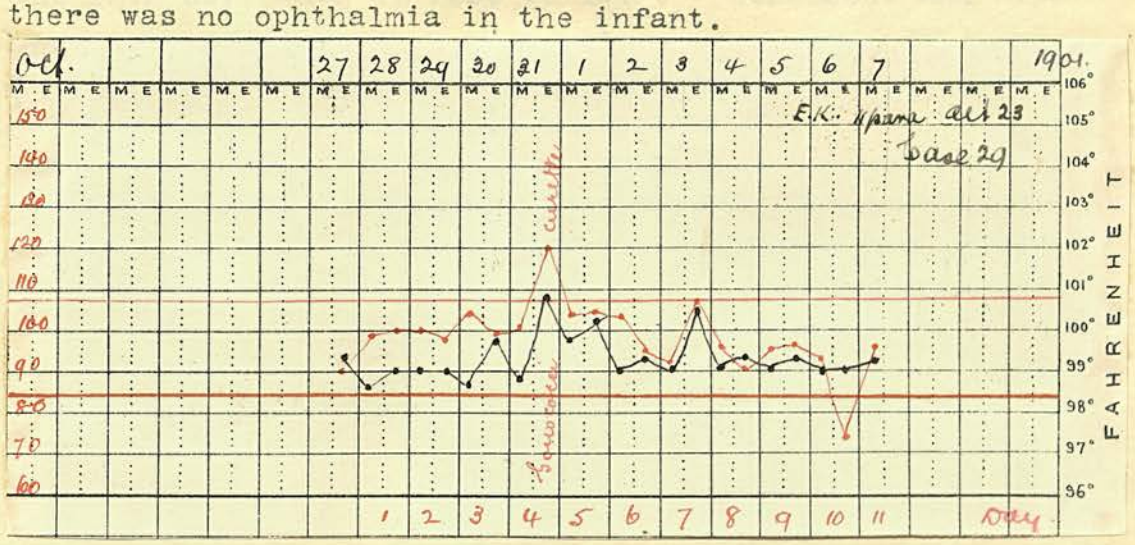
They occurred in 15 cases and always with some other organism, which was probably the cause of trouble.

Streptococci	11,43,94,122,129.	Staphylo	66,82,124.
Strepto & Staphylo	59,87,92.	Pneumo	123
Strepto & Gono.	48,98.	Diplo.	58

Gonococci.

In every case under this heading the characteristic grouping of the kidney-shaped diplococci in the pus cells was observed and Gram's stain was used as a check.

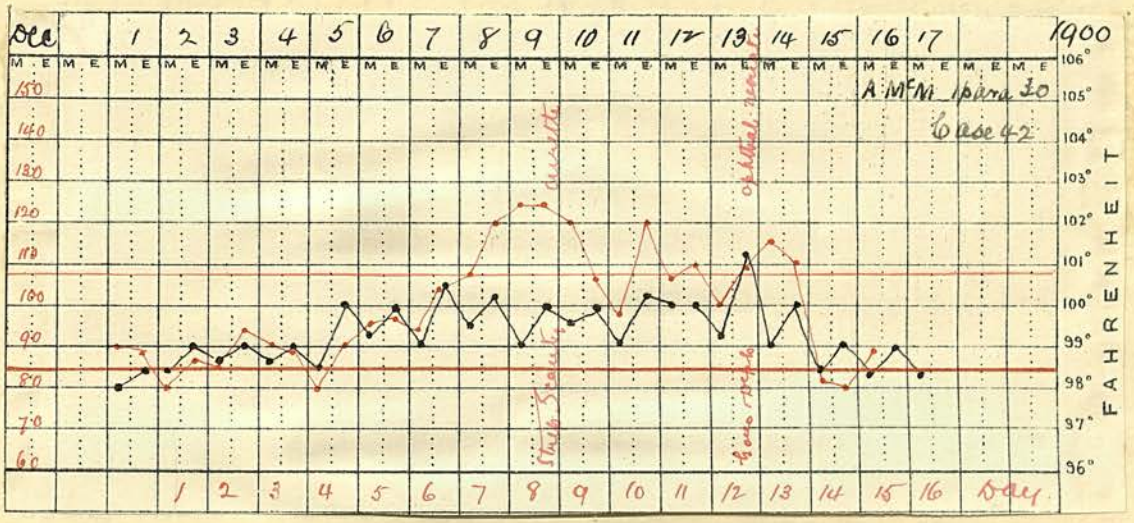
Only 3 cases (29,49,126) were seen in which the germ occurred pure. They gave little trouble, and there was no ophthalmia in the infant.



B. Mixed Infection.

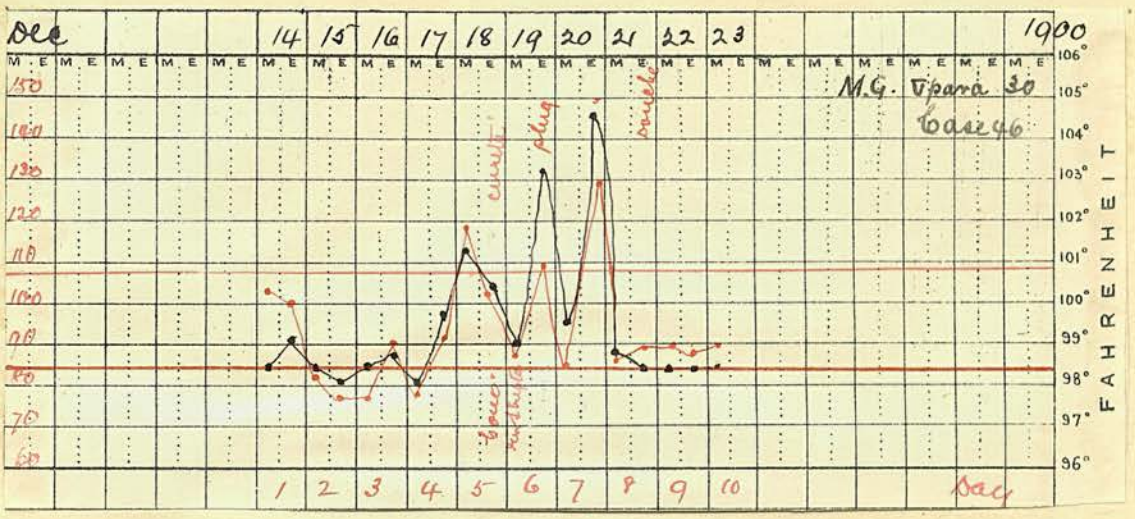
Streptococci	21,46,76,42.	Staphylococci	67
Strepto & Staphylo	13,73.130	Bacillus Coli	7
Strepto & Bacill.	48,98	Pneumococci	40

The serious cases were those in which Streptococci and Staphylococci were found.



Case 42 is mentioned under the heading of pure Streptococcic infection, because at the first examination nothing else was found and the chains with some difficulty. The pulse here was much higher than the temperature until the 12th day, when it rose to 101°. Gonococci and Diplococci which stained with Gram's stain were then found. At this time the infant had a gonorrhoeal ophthalmia.

This condition of the infant's eyes occurred extremely rarely, but when it did, the organism was found in the conjunctival discharge.



These cases would seem to indicate that the Gonococcus itself is not a cause of serious infection during the puerperium, the chief source of trouble being the accompanying germs.

Diplococci.

These and the Bacilli which have been mentioned are described by Dr. Stini of Paris in an interesting paper on "Microbiology of the Uterus" presented as a thesis by him in 1897.

I was unable to classify them. They occurred in some cases in considerable numbers without any definite grouping. The cocci were round, usually large, occurring in pairs and staining by Gram's stain as well as Fuchsin. When no other organism was present, no interference with the puerperium was caused, (vide Nos. 10,51,54,88) beyond the initial pyrexia.

B. Mixed Infection.

Streptococci 44,70,80,106.

Bacilli 58.

As is seen above, all but one were associated with Streptococci. Here again, the latter organism appears to have caused the dangerous symptoms, and there was the usual rapid pulse of this infection. Some of them are already described.

The other case (58) in which the Bacilli were found had a comparatively slow pulse, and after two days of pyrexia became normal.

Case 41, which does not appear under any other heading, was of very considerable interest to me, as shewing the advantage of the use of the curette. The patient was treated in the Extern Maternity, and the confinement was complete before the arrival of the student. With a temperature of 102 and pulse 132, a uterine douche only was given. Next day, the thermometer registered 102.2 and pulse 124, shewing that no improvement had resulted. Rheinstädter's blunt curette was then used, and a very large quantity of debris removed with immediate good effect, as a normal convalescence followed. I cannot but believe that without the curetting the result would not have been so satisfactory.

In all probability, this organism was a Streptococcus similar to some of the others obtained in diplo chain form, and which on culture, gave a typical chain of cocci. It was found in very great numbers.

Micrococci.

In cases 15,16,19,96,119,128, in some of which high temperatures had been recorded, nothing could be found but extremely small cocci scattered over the field. The first was the subject of a street birth, and the pyrexia occurred on the third evening. The uterus was subinvoluted, as was the case in No. 119.

In 16 and 19 there was some vaginal ulceration to account for the pyrexia.

Case 128 had a temperature of 102 before and immediately after delivery. No definite cause could be assigned for the pyrexia, which continued for several days after delivery.

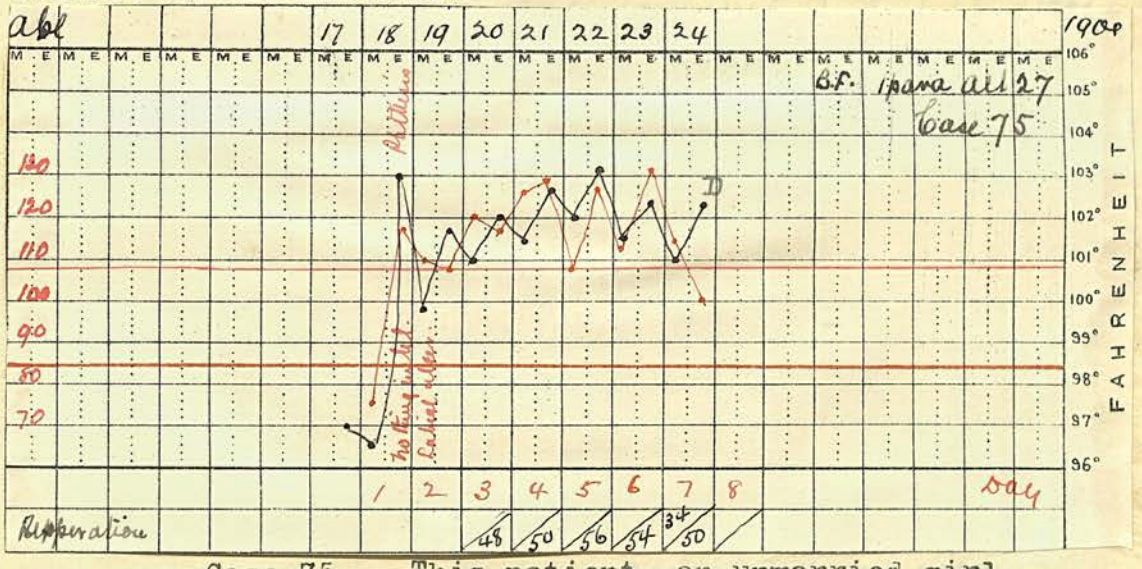
No Organism found.

These are amongst the most interesting cases in the list. Out of 130 cases, there was a rise of temperature in 13, which was apparently due to some cause outside the uterus, for although many different smear preparations were examined, no germ could be found. Taking the cases individually, we find as follows:-

Case 60. The first rise of temperature occurred on the 8th day of puerperium, following a normal labour, and the pulse rate was then 114. Little change in pulse rate followed the curetting, but there was no subsequent pyrexia.

Case 63. Delivered herself without assistance, in the Extern Department, of a macerated foetus. On the 2nd day, temperature 103.6 and pulse 96. Following the use of the curette, it became normal and remained so. She was a multipara, and taking this into consideration with the disproportion between pulse and temperature, Bacillus Coli was carefully looked for, but no organism could be found. There was no further interference with convalescence.

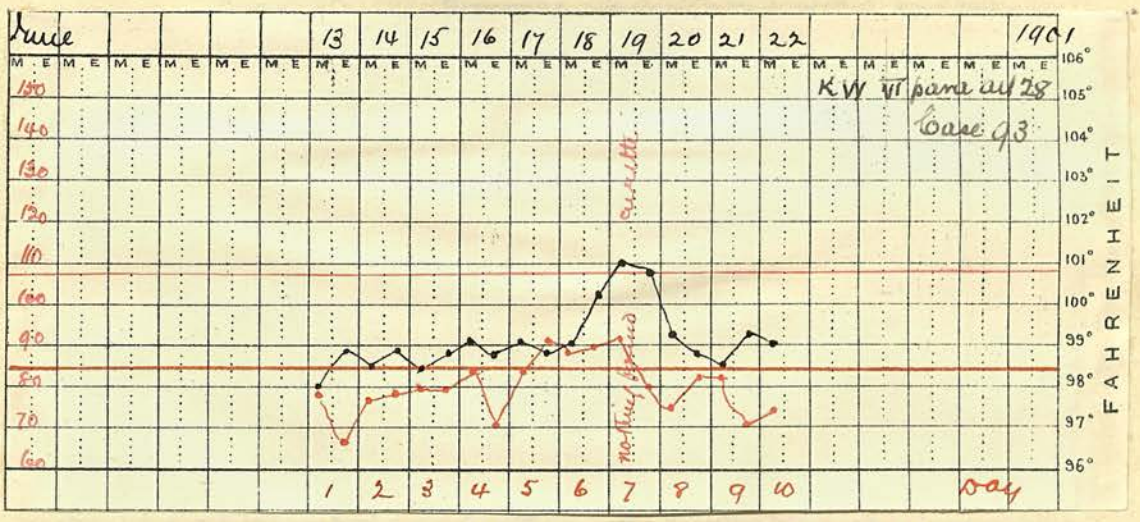
Case 64. The condition is accounted for by the breast trouble, and disappeared with the subsidence of the mastitis.



Case 75. This patient, an unmarried girl from the country, was admitted to the hospital in labour. Two months previously, she had an attack of Influenza, and had been in bed ever since. She had rales and rhonchi over both lungs on admission, and a temperature of 103 on the first day. The confinement was premature, but there was some bruising of the

labia. Though nothing was obtained from smears from the uterus, some Streptococci were seen in preparations from the labial ulcers which formed later. The lung conditions rapidly increased, and she died on the 7th day, of what the Consulting Physician, Dr. Little, termed "Explosive Phthisis".

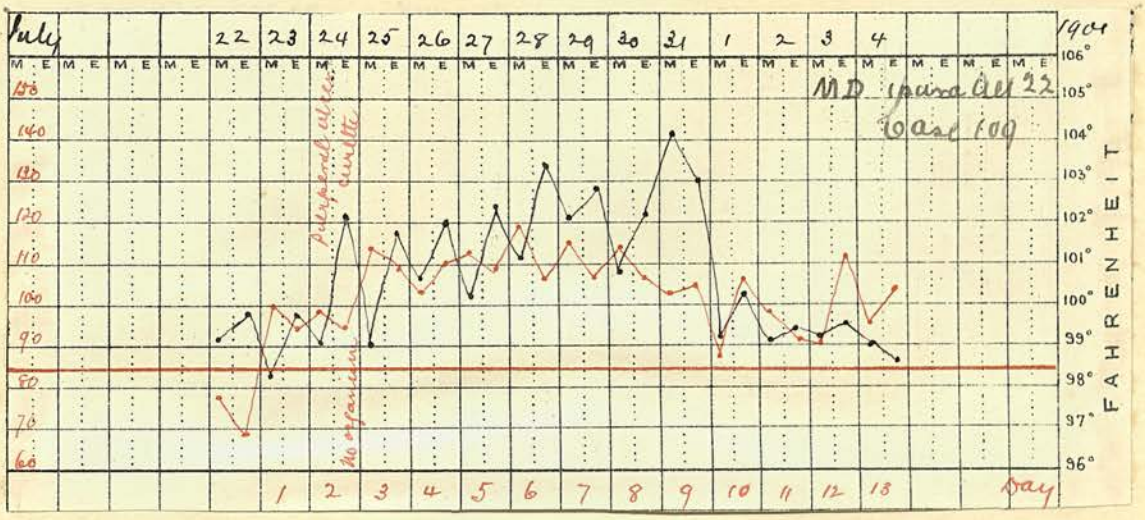
Case 85 was extremely emaciated by prolonged and obstinate vomiting and diarrhoea, continuing for some weeks before admission. The temperature was 103 at time of delivery, but subsided after the third evening, at which time the examination was made.



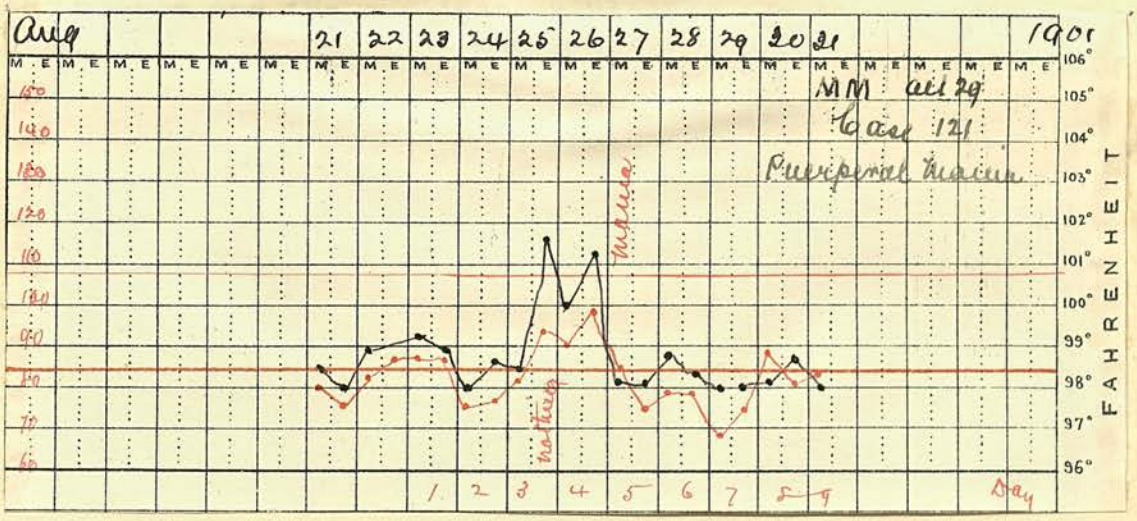
Case 93. Temperature occurring on the 7th day with slow pulse. Uterus subinvoluted and retroflexed.

Case 101. Had puerperal ulceration.

Case 102 and 105. Vide tables.



Case 109. Pyrexia associated with troublesome cough, but no auscultatory signs. Puerperal ulceration.



Case 121. This temperature on the 3rd and 4th nights was followed on the 5th day by puerperal mania. On the onset of mania the temperature became normal.

Case 125. Following a Forceps delivery with

laceration of the perineum which failed to unite and became ulcerated. Pyrexia ceased with granulation. Case 109 was similar.

It is seen that in the majority of the above cases a very definite cause of morbidity existed. The pyrexia preceding the onset of mania is well known. The fact of sloughing occurring at the perineum with absence of germs in the uterus, is of some interest.

In the few cases in which no cause could be assigned for the rise of temperature, the condition was transitory and not marked.

Two other cases not mentioned here (Nos.9 & 12), a curetting was performed on account of too red lochia with Subinvolution late in the puerperium. There was no pyrexia and the examination yielded negative results.

Conclusions.

This study extending over the last 15 months of my Assistant Mastership was made from some 5000 confinements. The cases were not selected in any way, but were taken as they arose, so that they are consecutive, and as will be noted, each case is followed to its conclusion so as to shew the result of the treatment adopted and the effect of the various organisms. It was undertaken to shew the advantages of Bacteriological examination of, not merely uterine lochia, but of actual scrapings from the wall of the cavity, in every case of morbidity during the puerperium, unless some very definite cause is found altogether apart from the genital organs.

The material is obtained without difficulty, and with no more pain to the patient than an intra-uterine douche would give; the microscopic examination is readily made, and as Williams says, "We are enabled to make a positive diagnosis as to the presence or absence of puerperal infection and of the species of organism standing in causal relation to it, and in many instances to determine the prognosis and treatment of the case".

The knowledge that no organism exists in the uterus is sufficiently satisfactory, but in addition, it relieves us of the necessity of intra-uterine applications of any sort, with their accompanying dangers, and this knowledge we could not have without the aid of a Bacteriological examination.

In reference to the use of the curette during the puerperium some difference of opinion exists. Fritsch (Deutsche Med. Woch. 1891) feared lesion of the Uterus and opening of large sinuses for absorption, or displacement of thrombi, and stated that lesions of the cervix might have given origin to the septic condition. He further says that curetting comes too late and that the Endometritis may be only a secondary condition; and he concludes that those cases which shewed apparent good results after curetting were only mild ones.

Von Weiss, assistant to Carl Braun, published in Vienna statistics of 86 cases in which he had used the curette, and he is not satisfied with the result.

In all the above cases the sharp curette was used, and in the latter collection a considerable number were treated for some days by intra-uterine douching after the pyrexia had occurred before the curette was used, the result being that several deaths were recorded and the majority of the cases had a long period of high temperature before their ultimate recovery. In addition to this, some of them had peri- and para-uterine inflammatory conditions. A proportion of the patients who died were brought into the hospital after delivery and septic, so the infection was in existence for some time before the uterine contents were removed, and time was given for the spread of the infecting agents.

In this series of cases I have endeavoured to point out the necessity of immediate curettage if it is to be beneficial, and to shew by a comparison of cases

that those in which a delay took place had a more prolonged convalescence than the remainder in which there was none.

There is a general consensus of opinion that auto infection does not occur. This being so, infection must occur either through lacerations in the genital tract or by absorption from the uterine wall. Organisms gaining entrance by the vagina readily pass into the uterine cavity and there find plenty of suitable material in which to increase, and every condition favourable for their growth, and so long as this material remains the patient is in danger, and the necessity for removing it is as urgent as the removal of septic areas in surgical wounds, the organisms being the same in both cases.

In a majority of the cases recorded here the quantity of material removed by the curette was large, and it would have been quite impossible to remove it by means of a douche only on account of its adherence to the uterine wall.

Von Weiss objects to the use of the curette because he says portions of placenta and decidua may remain after its use, and in his opinion it is always necessary to introduce the fingers to be sure the cavity is empty, and at times to detach portions from its walls, and he therefore prefers the finger. Here I differ from him, as I am satisfied that after some experience, even a small piece of blood clot can be distinguished inside the uterus by the use of the curette, and if the finger

is passed into the cavity after the careful and systematic application of the instrument it is found to be free from any fragments.

A further advantage is that it can be boiled and rendered sterile, and being long in the handle, can readily reach the fundus and explore all parts of the cavity, which the finger cannot. In addition to this, the manipulations with the curette are not painful, while the forcible manipulations necessary to reach the upper portion of a puerperal uterine cavity render an anaesthetic a necessity.

It has been urged by some well known American obstetricians that curetting is a dangerous proceeding in any case of Streptococcic infection. This does not appear to be the case from the instances recorded here, 35 of which were pure infection. Of those treated in the hospital, all recovered.

Taking into account the very considerable number of cases, some of which had a very high initial temperature and many organisms, which became normal immediately after the curetting and remained so, it is difficult to believe that the use of the curette was anything but beneficial.

In the Extern Department convalescence was more prolonged, doubtless because the cases were not under such close observation, and treatment was thus not so prompt.

Five deaths are recorded in the series. They are described in the foregoing text cases 4 and 107

under the heading of Streptococcic infection, 92 under Staphylococci, 127 under Bacillus Coli and 75 no organism.

Case 4 without doubt died of Streptococcic infection, and though it is very doubtful if anything could have checked its rapidity of action, I regret that Anti-streptococcic serum was not employed, as it is the only case in the series which might have been used as a test case, though when first seen the patient was so completely infected that serum would most likely have been too late.

Cases 75 and 107 died of Phthisis.

No. 92 probably died of Sepsis, and as the Staphylococcus predominated, the case is under that heading.

Case 127 very closely resembles Kronig's case, though she died on the 3rd day with signs of peritonitis, and at the post mortem examination a ruptured vermiform appendix was found. We were unable to examine the patient after death.

Cases 75 and 127 occurred in the hospital, the remainder in the patients' own homes.

In urging early treatment, the advantage of taking the temperature in the mouth may be pointed out. While in Vienna recently, I was informed that some experiments had been made in the Maternity wards which shewed that the record obtained from the axilla was from .5° to 1.5° lower than that from the mouth, and if only the former was taken, pyrexia might have existed for some time before it was noted.

A further point to be noted is the danger of vaginal examination. After discussing the work of Doderlein, Winter and others, but chiefly that of Krönig and Menge, in reference to his own, Williams remarks, "I think we are fully justified in concluding that we have found nothing in our series of cases to indicate that vaginal secretion.....contains pyogenic cocci which can give rise to puerperal fever. When organisms are found, they have probably been carried in from the external genitals by faulty technique." - "Death from puerperal infection is always due to infection from without, and usually to neglect of aseptic precautions;" and further,-"Such being the case, the prophylactic vaginal douche is useless and probably injurious;" and he concludes, "Limit vaginal examinations and practise external palpation, and when vaginal examination is made, cleanse the external genitals and render the hands aseptic, as for an abdominal operation."

That labours can be conducted solely on the information obtained by external palpation, the work at the Rotunda Hospital proves, for as I have stated, extremely few of the patients are examined vaginally throughout their labour, and the results are good as regards both infantile mortality and maternal morbidity. The latter has decreased since vaginal examination has been limited. The same holds good for the vaginal douche, which is now never used either before or after labour, unless some very definite indication exists. Even when laceration of the perineum requires suturing, it is done without a douche and with excellent results.

The majority of these cases shew that the odour of the lochia gives no indication of aseptic condition. In very few of the Streptococcic cases was there any odour of an abnormal kind, and those which had offensive odour, were chiefly Bacillus Coli infection. Thus the practice of deciding by this means if treatment is required cannot be too strongly condemned.

That a high temperature may be due to some intestinal condition is undoubted. Bumm, von Franque and Krönig have recorded cases in which none of the usual pathogenic germs were found in the uterus, "but only unidentified cocci and bacilli", and these cases recovered on purgation. Nevertheless it cannot be known until an examination is made that none are present. It may also be pointed out that "poisonous substances may be produced by bacteria in the necrotic material lining the interior of the uterus." Some of the most troublesome cases I have seen are those in which pyrexia was considered due to constipation, and the curetting delayed until the effect of a purgative was noted, and during this time the real cause was untreated. For this reason the curetting done on the first sign of pyrexia is a great gain in case of sepsis, and if no organisms are found, we have an assurance against further local treatment.

I desire to tender my warm thanks to Dr.R.D. Purefoy, Master of the Rotunda, for permitting me to make these investigations, and my gratitude to him for very many kindnesses during my term as his assistant.

To Dr.W.L.Watt of Winnipeg I am indebted for his aid in the bacteriological work, in which his experience was invaluable.

To Dr. Carton, my colleague, I am grateful for specimens he was good enough to obtain for me during his months in charge of the Maternity Department, and to Drs. Watt, Goldstein, Colclough, and our various Clinical Clerks, for material from the Extern Department.

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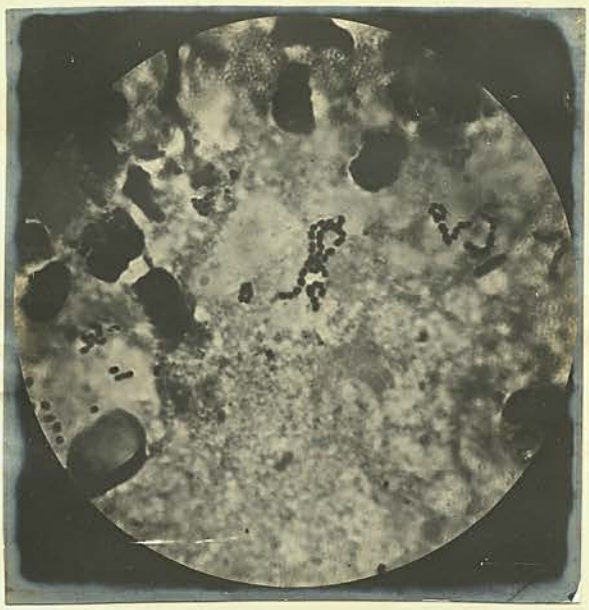
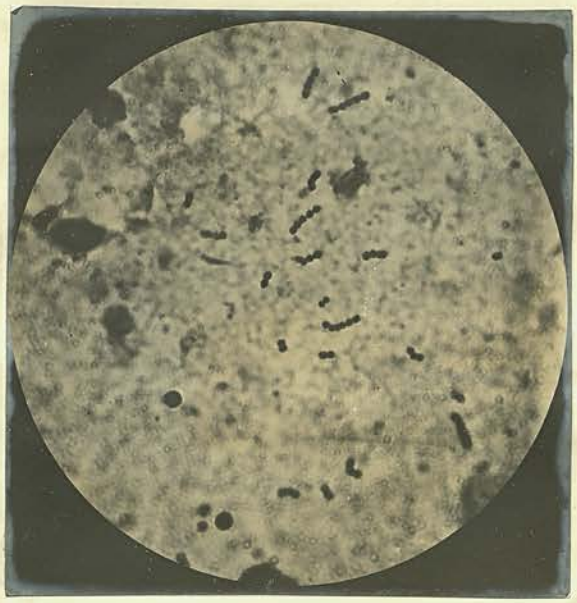
Gonococci from Case 130

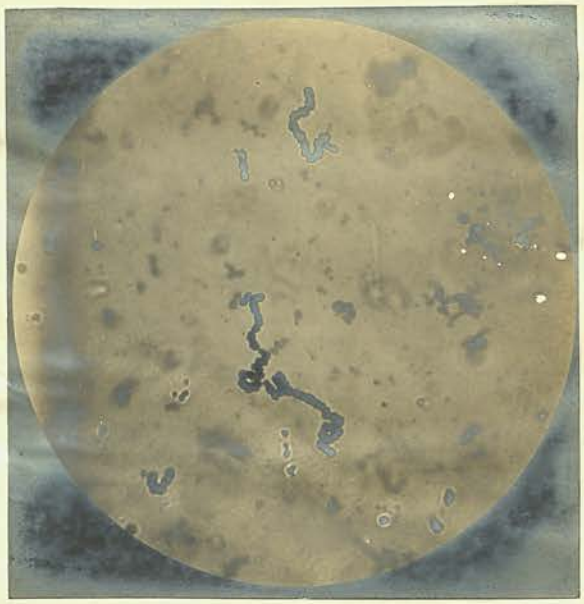


Staining Diplo Chains from Case 41



Case 112

From face 112
many chains of Streptococci



From case 41 Stained by Gram stain
Showing Diplo Streptococci

Case	Name. Age	Preg.	Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
1 Ext	F.C. 37 Aug. 1st.	X.	Plac. Praev. Version Foetus macerated	5th 102.8 P112	Thick Scanty	Staphylococci abundant and pus cells.	Curetted normal next day and after.
2 Ext	M.C. 32 Aug. 8th.	IV.	Placenta manually removed	4th 102 P114	Thick Scanty	Pneumococci	Curetted. Temp. 101.6 P108 5th day, 6th 102 P101 Douche & Iod. Gauze plug also on 7th. Normal on 8th.
3 Ext	M.D. 28 Aug. 2nd.	IV.	Normal labour	5th 102.8 P100	Foul	Streptococci abundant groups of Staphylococci	Curetted. Normal next day.
4 Ext	M.S. 23 Aug. 8th.	II.	Delivered by nurse	4th 104.6 P132	Thick No odour	Streptococci abundant and long chains	Curetted, some membrane removed 5th 102 6th 103.4 P114 Exam. made 7th 103.6 P132 Pain in head & abdomen distended 9th 104.8 P140 Patient died.
5 R.H.	E.K. 28 July 29	IX.	Hge. at V. months Labour induced. Placenta adherent.	8th 103 P150	Normal	Streptococci many. Few Staphylococci.	Curetted. 9th 104 10th normal 11th 104 12th 103 P132 Plug 13th 103 normal no Streptos. few Staphylo. Temp. came down by lysis.
6 R.H.	M.C. 27 Aug. 1st.	I	Normal	6th 101.4 P116	Thick Sticky	Streptococci & Staphylococci.	Curetted and normal after.
7	J.N. Aug. 10th		Incomplete Abortion.	5th 102.4		Diplococci (Gonococci) Bacillus Coli Communis	Curetted Normal next day.
8 R.H.	M.R. 19 Aug. 4th	I	Normal. Vaginal wall bruised.	4th 100.8 P110	Scanty	Few large Diplococci	Puerperal ulcers. Some Streptococci on perineum. No material found in Ut. by curette. Iodoform dusted on daily. Temp. 99 to 100 for some days.
9 R.H.	E.W. 22 Aug. 3rd	I.	Normal	Normal	Red	No germ found.	Uterus Subinvoluted contained nothing. Examination on 10th day.
10 R.H.	M.L. 18 Aug. 13th	I.	Term. Foetus macera. Haematoma of Vagina	3rd 101.4 P108	Red Thick	Large Diplococci	Curetted Normal next day.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
11	K.C. 22 Aug.16th	I.	Term. Membranes removed by curette. HT 102 same evening	2nd 101 P120	Normal	Streptococci & Bacilli	Organisms found with difficulty. Curetted. Temp. normal after 4th evening.
12 R.H.	M.K. 23 Aug.13th	II.	Normal	6th 100.2 P100	Sticky Red.	No germ found	Nothing removed by curette. Taken as test.
13 R.H.	M.F. 20 Aug.25th	I.	Forceps	2nd 102.2 P120	Thick Foul	Staphylococci. Few Streptococci. Many Gonococci.	Curette. Membranes removed. 3rd day 103° Douche Gonococci only. Temp. normal next day & after.
14 Ext	M.T. 27 Sept.3	II.	Normal	3rd 103.4 P98		Few Streptococci.	Curette. Normal afterwards.
15 R.H.	M.D. 40 Sept.29	X.	Street birth	3rd 101.8 P120	Normal	Micrococci only	Uterus Subinvoluted. Some haemorrhage after. Fragments of membranes removed. Normal after.
16 R.H.	K.H. 29 Sept.30	I.	Term	3rd 102.6 P110	Thick	,, ,,	Small ulcer on lateral wall of vagina. Normal afterwards.
17 Ext	M.W. 28	II.	Term	8th 103.8 P120	Foul	Streptococci	Curetted. Normal afterwards.
18 Ext	E.I. 30 Oct.1st	VI.	Breech. Placenta adherent P.P.H.	3rd 101 P100	Foul	Pneumococci Staphylococci.	Curette. 4th day 102.4 P120 5th 100 6th 101.2 Douche 7th 102.3 Plug 8th 101.4 Plug 9th 101.5 10th 103.5 Plug. Gradually to normal.
19 R.H.	K.K. Sept.27	II.	Forceps. (Albumenuria) 1st day 101. Lacerated Perineum.	5th 101.8 P110	Purulent	Micrococci	Few Streptococci obtained in smears from puerperal ulcer of perineum. Vaginal douche only.
20 R.H.	E.N. 23 Oct.5th	III.	Labour Induced for Hge. at VI mos. Placenta Praevia.	4th 100.2 5th 100.4	Thick	Staphylococci & scanty Streptococci.	Membranes retained removed by curette. Normal afterwards.

Case	Name. Age	Date Preg. Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
21 Ext	J.P. 39 Sept.14	X. Labour completed before student arrived.	9th 100.6 P84	Foetid	Gonococci & Streptococci.	Uterine douche. Normal afterwards.
22 R.H.	E.M. 30 Oct.6th	I. Term. Large Fibroid. Patient alcoholic.	3rd 100.8 P100	Normal	Pneumococci & Bacillus Coli Communis.	Physical signs of Bronchitis 2 days later. Small patch of friction at base posteriorly. Sputum contained Pneumococci. Rapid recovery.
23 R.H.	S.G. 30 Oct.12	XII. Placenta Praevia Central. Plugged at her house.	2nd 101	Thick	Streptococci.	Very exsanguine on admission. Uterus plugged with Iod. Gauze daily. On 7th day Pneumococci & Gonococci & few shrivelled Streptos. Temp. 101. See Chart.
24 R.H.	M.B. 26 Oct.15	III. Occip. Post. Persistent Self delivery.	5th 100	Foetid	Pneumococci	Curetted. Some fragments removed. 100.6 in morning & normal after.
25 R.H.	B.M. 25 Oct.16	I. Occip. Post. Rotating to Transverse. Left to nature.	3rd 100 P96	Foetid	Diplococci small and large.	Curetted. Rigor after & Temp. 104 Normal next day 6th evening 102 P120 Pneumococci present. Patient coughing today. See Chart.
26 Ext	M.F.G. 25 Oct.4th	II. Normal	5th 102.2 P90	Foetid	Streptococci	Curetted 6th 104.2 Plug. 7th 101.2 Plug. 8th 104.8 Plug. 9th 102.6 Plug. 10th 102.5 Plug. 11th 99.4 douche. 16th 103 douche & few shrivelled Streptos found. After this normal.
27 R.H.	A.W. 28 Oct.21	V. VIII months Alcoholic.	2nd 100.8 P132	Thick	Streptococci	Curetted. Uterus very soft & flabby, bleeds easily 3rd 100.8 Curette & Plug Streptos scanty now 4th 99F & normal after.
28 R.H.	M.W. 33 Oct.28	VI. VII months. Foetus macerated.	4th 101 P120	Thick No odour	Streptococci	Curetted. Uterus small some decidua removed. Shivering after. Temp. normal next day & continued so.
29 R.H.	E.K. 23 Oct.27	II. Normal. Perineum lacerated.	4th 100.8 P120	Thick No odour	Gonococci	Some membranes & quantity of decidua removed by Curette. Normal afterwards.
30 Ext	J.B. 21 Oct.27	III. Plac. Praev. Margin. Version V½ mos.	3rd 100.8 P114	Normal	Pneumococci	Curetted. Absolute dulness at base of lungs & no vesicular murmur. 5th day 104 P120 6th 99. Good convalescence.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
31 Ext	K.B. 23 Nov.1st	I.	Term. Placenta retained & expressed.	8th 102.2 P120	Foetid	Streptococci, long chains & Bacillus Coli	Curetted remnants of placenta & membranes. 9th 101 P114 refused treatment.
32 R.H.	J.E. 40 Nov.9th	X.	Term. Temp. 100.8 before delivery.	2nd 101.5 P95 4th 103.8 P120	Thin, slimy, not foul	Streptococci	Curetted 2nd & membs. removed Normal next day 5th 102.2. Uterus plugged. See Chart.
33 Ext	B.M. 35 Nov.13	V.	Normal	8th 103 P120	Slimy & odour.	Pneumococci	Curetted & Uterus plugged some fragments removed 9th 100.2 Good convalescence.
34 R.H.	R.M. 25 Nov.19	II.	Eclampsia post partum.	5th 101.8 P120	Normal	Streptococci scanty	Curetted. Normal next day.
35 R.H.	M.O'T.31 Nov.22	IV.	Term. Oedema of cervix. Labour slow Ulcer of cervix.	2nd 101.8 P126	Foetid	Diplococci very abundant, staining by Gram's	Curetted. 3rd 102 P116 Abdomen distended cervix hard. Uterus plugged 5th normal. Sudden rise to 103 P150. Mania next morning 7th Cough sputum has many Pneumococci similar to those seen on 2nd day.
36 Ext	B.P. 20 Nov.18	I.	Labour completed before student arrived.	4th 103 P144	Foetid	Exam. only on 6th day & Streptos scanty & shrivelled.	Curetted. 6th 104 P120 Plug. 8th normal. 9th 103 P114 Plug. Normal next day & afterwards.
37 R.H.	M.C. 22 Nov.20	I.	Breech. Arms brought down.	6th 101.8 P105	Foul	Bacillus Coli Communis	Curetted. 7th 103 P120. Normal afterwards.
38 Ext	M.D. 23 Nov.23	II.	Antepartum Hge. for week.	8th 103.6 P120	Thick Pungent	Streptococci	Curetted & Uterus plugged. Normal next day & afterwards.
39 R.H.	K.M. 23 Nov.28	I.	Prolapse of Cord Forceps	4th 100 P120	Offensive.	Small Streptos found with difficulty. Many smears.	Curetted. Normal afterwards. This patient had Tacchycardia.
40 R.H.	K.R. 36 Dec.1st	VI.	Placenta Praevia. Natural delivery on admission.	5th 101.6 P88	Normal	Gonococci & few Pneumo. Bacilli with nuclear Stain.	Curetted. 6th 102.6 P87 Uterus plugged. See Chart. Examined by practitioner & sent into Hospital.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
41 Ext	J.K. 23	II.	Delivery before arrival of student.	3rd 102 P132	Foul	Many chains diplococci	Douche only on 3rd. Next day 102.2 P124. Curetted & large amount of debris removed. Normal afterwards.
42 R.H.	A.M'M. 20 Dec. 1st	I.	Normal.	See Chart. 100.4 P124	Thick Red 9th day.	Streptos very scanty. Some destroyed by phagocytes.	Uterus Subinvoluted Curetted fragments removed, no haemorrhage. Some Streptos seen in Leucocyte broken up. Foul odour 12th day. Gonococci & some diplos. staining by Gram. Child had ophthalmia 12th day.
43 R.H.	E.C. 23 Dec. 6th	I.	Normal. Perineum Lacerated.	7th 102 P144	Normal	Few Streptococci. Short thick Bacilli.	Curetted. Subinvolution. Uterus bleeds easily. Contracted well. Normal next day.
44 R.H.	J.H. 23 Dec. 10	III.	VII months.	5th 100.2 P110	Foul	Few Streptococci. Diplococci in pairs only.	Curetted some offensive decidua away. Normal afterwards.
45 Ext	J.R. 43 Dec. 13	XIII	Child born before arrival. Placenta expressed.	3rd 102.6 P120	Foul	Streptococci in diplo form in large numbers.	Curetted. Portion of placenta removed 4th 100.6 P98 5th 101 P86. Normal after.
46 R.H.	M.G. 30 Dec. 14	V.	Normal. Membs. retained.	5th 101.4 P120	Thick	Gonococci & few Streptococci.	Membs. curetted away 6th 104 P110 Uterus plugged (more Gonococci) 7th 104.4 P132 Plug. 8th 98.4 P88 9th 98.4 Plug removed.
47 R.H.	M.M'G. 32 Dec. 17	V.	Normal	3rd 101 P112	Adhesive	Streptocccci scanty.	Curetted large amount of decidual debris away. Normal next day.
48 R.H.	J.J. 29 Dec. 16	II.	Membs. retained removed with curette.	5th 100.8 P120	Normal	Gonococci. Streptococci & few Bacilli.	Large amount of debris removed with curette. Normal next day & afterwards. No odour.
49 Ext	E.D. 22 Dec. 17	II.	Normal	3rd 103.2 P136		Gonococci	Cotyledon of placenta removed by curette. Convalescence good.
50 Ext	M.N. 35 Dec. 21	II.	Normal	4th 101.8 P110	Thick	Streptococci	Curetted. 5th 101.8 P120. Uterus plugged 6th 102.3 P120 Plug. 8th 102 P120 Plug. 9th 101 P120 10th 98.6 P90 & normal afterwards.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
51 Ext	I.E. 30 Dec.22	IV.	Normal	4th 103.2 P100	Foul	Large Diplococci	Curetted membs.removed 5th 101.5 P120 Plug 6th 100 P82 Plug removed 7th 100 P82 & normal.
52 R.H.	M.F. 29 Jan.1st	III	Term.Membs.retained & curetted.	5th 102 P120	Scanty No odour	Streptococci scanty & faint.	Curetted small piece of membrane removed.Normal afterwards.
53 Ext	M'S. Jan.10	X.	Normal	5th 103 P108	Scanty	Pneumococci many seen	Had cough for some days before labour.6th 100.8 7th 103.2 P115 Plug.8th 102 P115 Plug.9th 101.4 P100 Plug.10th 98.6 P80 11th 102.5 P120 Temp.fell by lysis.
54 Ext	M.M. 18 Jan.12	II.	IV months	3rd 101.6 P75		Diplococci staining by Gram not grouped.	Curetted portions of decidua Normal afterwards.
55 Ext	M.B. 46 Jan.15	XI	Labour over on arrival of student	5th 100.5 P120		Many chains of diplococci.Few typical Streptococci.	Curetted placental tissue & membranes 6th 101 P112 Plug.7th 102.8 P120 Plug.8th Normal & afterwards.
56 R.H.	E.F. 21 Jan.23	III.	Normal	3rd 101 P112	Thick Red.	Few Streptococci. Bacillus Coli Communis.	Curetted some decidua removed. ~~See Chart~~.
57 R.H.	M.C. 30 Jan.23	VII.	VI½ mos.Footling & Prolapse of Cord. Left to nature.	4th 99.8 P85	Foetid	Bacillus Coli Communis, a few diplococci.	Curetted.5th 100.2 P80.6th 102 P90 Normal after.
58 R.H.	E.P. 26 Jan.25	I.	Forceps.Adherent Placenta.	3rd 102 P100		Few large Diplococci some Bacilli.	Curetted.5th 100.6 P80.6th 102 P90.Isolated Bacilli of various lengths in field.Normal afterwards.
59 R.H.	B.R. 26 Feb.3rd	I.	Normal	4th 99.8 P132	Foetid	Many thick Bacilli in clumps.Few Streptos & Staphylos.	Large amount foetid clot & membranes curetted.Puerperal ulcer & cervix gaping.6th 102 P120 Plug.7th 102 P128 Plug.8th 100.8 Plug.9th 104.6.See Chart.
60 R.H.	C.M. 27 Jan.28	I.	Normal	8th 100.4 P114	Normal	No organisms found.	Quantity of membranes curetted & blood clot.No change in Temp. or pulse for some days.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
61 Ext	S. 39 Feb.6th	XIV.	Placenta Praevia V½ mos.Version.	3rd 102.8 P130	Scanty No odour	Many Diplococci stain Gram.Chains & isolated.	Portions of placenta & membs. curetted.Patient has had cough for four months.4th 104 P130 5th 103 P130 Plug.6th 102 P120 7th 98 P100 8th 99.8 P100 & normal.
62 R.H.	M.O'L.24 Feb.17	II.	Twins.Self delivery	6th 100.8 P120	Normal	Staphylococci	Temp.above 99 from 2nd day.Uterus subinvoluted contained some fragments removed by curette. See Chart.
63 Ext	K.K. Feb.21	VI.	Macerated Foetus Born before arrival	2nd 103.6 P86		Nothing found	Some decidua removed by curette. Normal afterwards.
64 Ext	M.S. 21 Feb.20	II.	Normal	6th 105 P140	Normal	Nothing found	Breasts full & tender 7th 100.2 P112 breasts softer.Normal next day.
65 Ext	T.C. 28 Feb.24	VII.	Normal	4th 103.8 P132	Thick Red	Pneumococci in chains & clumps.	Has Herpes labialis & cough after Influenza.Dulness at base of lungs.Curetted 5th 102.6 P124 6th 103.8 P130 7th 102 P120 8th 103.8 P112.Normal afterwards.
66 R.H.	K.L. 29 Mch.1st	X.	Foetus V½ mos.Maccrated.Uterus curetted.	2nd 102.8 P124	Normal	Staphylococci scanty Some Spored Bacilli.	Curetted & Plugged with Gauze 3rd 102.4 P112.Foetid Clots & Membs.removed.
67 Ext	M.A.W.22 Feb.28	II.	Born before arrival of student.	3rd 101 P120		Gonococci & round diplococci staining Gram.	Curetted some membranes & decidua.4th 103.4 P130 Plug.5th 99.4 P126 Plug.7th 101.3 P112 Douche.Normal afterwards.
68 Ext	M.M'G.30 Feb.23	II.	Normal	10th 102.8 P120		Diplos in chains.Culture shews Streptococci.	Curetted 11th 101.4 P112 Plug. 12th 101.4 P100 Plug.13th 103.8 P126 Plug.14th 101.4 P100.Normal afterwards.
69 Ext	A.L. 36 Apr.1st	VII.	Normal	5th 101 P100		Streptococci	Curetted some decidua removed 6th 100.2 P90 Uterus plugged & Normal.
70 Ext	M.C. Apr.5th		V months	4th 102.4 P120		Streptococci & few large ringed Diplococci.	Large quantity of decidua curetted.

Case	Name.Age	Preg.	Date Period & Remarks	Day of P. Temp.& Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
71 Ext	E.M'K.32 Apr.4th	VIII.	Normal	4th 104 P120		Streptococci with large cocci.	Curetted portions of placental tissue.Gradually to normal 10th day.
72 Ext	M.K. 21 Mch.29	II.	Normal	7th 102.4 P108		Streptococci.	Curetted portion of placenta 8th 98.6 Douche.10th 104.6 P130 Plug.12th 98 P104 Douche.& Normal after.
73 Ext	M.D. 33 Apr.7th	VII.	Normal	4th 103.4 P120		Strepto-Staphylo & some Gonococci.	Some membranes curetted away.
74 R.H.	M.W. 23 Apr.12	I.	Forceps.Membs. Adherent curetted.	5th 100.8 P120	Slimy	Streptococci few & scattered.Few large Diplococci.	Some membs. removed by curette. Normal afterwards.
75 R.H.	B.F. 27 Apr.17	I.	Premature.Bruising of labia.	1st 103 P144	Slimy	Nothing in Uterus on second day.	Membranes protruding from cervix. Labial ulcer had Streptococci. Rhonchi over lungs on admission. Patient died of acute Phthisis.
76 Ext	M.O'L.19 Apr.16	I.	Normal	4th 103.2 P120		Streptococci & Gonococci.Some Diplococci.	Curetted,some decidua removed. Baby had Ophthalmia 3rd day 5th 101.6 P104 Plug.6th 104 P120.7th 104.6 P120 Many Streptococci.8th 102 P100.9th 103.4.11th 100.12th 105.8 P142.13th 102.8 P110.14th 99 P84.15th 103.8 P120.16th 102 P108 17th 101 P92.18th 98 P88 & normal.
77 R.H.	M.B. 23 Apr.13	I.	Placenta manually removed.	7th 101.2 P120	Thick	Staphylococci & few Streptococci.	Quantity of Membs.removed with curette.Normal afterwards.
78 Ext	M.B. 31 Apr.23	VI.	Normal	3rd 101.9 P130	Thick. Odour	Pneumococci & Streptococci.	Curetted.Normal next day. Rales & Rhonchi night of curetting.
79 Ext	M.L. 19 Apr.21	I.	Placenta manually removed.	6th 102 P112	Foetid	Staphylococci & some Streptococci.	Curetted.Normal after.

Case	Name.Age	Preg.	Date Period & Remarks	Day of P. Temp.& Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
80 Ext	C.S. 24 Apr.26	II.	Accidental Haemorrhage Plug & Binder.	4th 101.4 P144		Streptococci large cocci.Some Diplococci.	Curetted quantity of debris 5th 103.2 P120.Refused treatment. Admitted to General hospital later with Septic peritonitis & recovered slowly.
81 R.H.	R.O'H.21 Apr.27	I.	Term.Membranes adherent curetted.	7th 102.4 P105	Thick	Staphylococci	Curetted nothing found.9th 101.4 P98 Normal afterwards.
82 Ext	C.B. 30 May 13	V.	Normal.Perineum destroyed by former pregnancies.	3rd 102.2 P120	Foul	Many long chains Streptos & clumps of hundreds.	Curetted pieces of decidua 4th 102.8 P132 Plug daily. 5th 102 P120. 6th 100.4 P108. 7th 98.4 Normal afterwards.
83 Ext	M.A.S.29 May 13	III.	Post Part.Hge.Membs. adherent.	3rd 102.2 P120	Scanty Sweet	Few long chains Streptos occasional Pneumococci.	Curetted.4th 102.4 P140.Refused treatment.Admitted later to General hospital with Pneumonia.
84 Ext	B.T. 32 May 18	V.	Aborted 3 days before.	102 P110	Offensive	Streptococci & few Staphylococci	Curetted decidua removed.2nd 104 P120 Plug.3rd 100.4 P85.4th 98.2 5th 103.8 P130 Plug.Admitted to Hospital.Normal after first day. Parametritis on left clearing up well.
85 R.H.	B.D. 34 May 17	X.	Term.Vomiting & Diarrhoea before admission.	3rd 101.6 P110	Foul	Nothing found	Temp.103 after delivery.Normal after 3rd day.
86 Ext	M.R. 24 May 14	I.	Normal	8th 102 P100	Red Sweet	Streptococci and Staphylococci.	Curetted large amount decidua & placental tissue.9th 103.2 P132 10th 102.2 P 120 Plug 11th 103.2 P120 Plug.12th 102 P120. 13th 101.8 P104 Plug.14th 104.2 P120 Normal after.
87 Ext	K.T. May 17	I.	Incomplete Abortion	9th 101.4 P120		Staphylococci few Streptos & Bacilli.	Curetted decidua removed.Normal afterwards.
88 R.H.	M.M. 26 May 26	I.	Normal	5th 100.9 P88	Foul	Very few scattered round Diplococci.	Curetted some fragments.Normal next day.Some distension of Abdomen.
89 Ext	E.L. 24 May 30	II.	Labour complete on arrival.Post Part. Hge.Portion of Placenta removed.	5th 100.8 P128	Offensive	Few Streptococci & Diplococci scattered.	Curetted some fragments of placenta.Temp.about 100 till 11th day.

Case	Name.	Age	Preg.	Date Period & Remarks	Day of P. Temp.& Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
90 R.H.	C.P. June 5	22	II.	Term.No perineum since last confinement.	3rd 100.6 P120	Putrid odour	Many motile Bacilli Coli Groups Staphylococci.	Curetted some debris;Temp.normal after.Pulse high till 6th evening
91 R.H.	B.C. June 11	20	I.	Long labour. Placenta Expressed. Membs.torn.	3rd 100.8 P110	Thick	Some Streptococci Many Bacilli Coli.	Curetted very foetid membs. See Chart.
92 Ext	M.T. June 12	32	VIII.	Accidental Hge. Plug & Binder.	3rd 103	Offensive	Many Staphylococci & long Bacilli.Few Streptos.	Curetted decidua and clot. Subnormal next day & remained so or normal till Death on 6th day.
93 R.H.	K.W. June 13	28	VI.	Normal	7th 101 P84	Normal	None found.	Subinvolution.Fundus retroflexed & full of clots.Normal afterwards.
94 Ext	L.C. June 20	19	II.	Normal	3rd 101.2 P92	Adhesive	Scanty ill formed Streptos occasional thick Bacilli.	Curetted.Normal next day.
95 Ext	M.A. June 24	25	III.	Normal.No perineum left from last labour.	3rd 104.8 P128	Scanty Foul	Many Bacilli Coli.Few Diplococci.	Curetted,some decidua removed. Normal next day.
96 R.H.	A.D. June 23	18	I.	Normal.Has rash over body.	5th 99.4 P108	Offensive	Extremely few solitary cocci.	Nothing found by curette.Normal after.
97 Ext	J.W. June 27	24	II.	Normal	1st 103.4 P100	Thick	Streptococci	Large amount blood clot & some decidua removed.2nd 102.8 P100 3rd 101.1 P104.Patient refused treatment & was lost sight of.
98 Ext	S.B. June 24	27	V.	Normal.Old laceration.	5th 101.2 P132	Adhesive	Streptococci & diplos in leucocytes like Gono.& Bacilli Coli.	Piece of Placenta removed 6th 101.2 P112 7th 102.2 P142 Plug 8th 100.2 P120 9th 100.1 P110 10th 99.6 P120 11th 98.2 P98.
99 Ext	E.M. June 29		XI.	IV½ mos.Membs.ruptured for 3 days.	1st P108	Foetid	Streptococci	Some Placental tissue curetted Uterus retroflexed replaced. Normal next day.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp.& Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
100 Ext	A.K. 33 July 7	II.	Adherent Placenta 104 P120 1st day.	2nd 103 P120		No organism found in Uterus.	Puerperal Ulcer.Curette found nothing in Uterus.3rd 101.2 P100 5th 101.2 P108 6th 100.4 7th 99.2 P112 8th 99 P84.Ulcer healing well.Normal after.
101 Ext	C.P. July 10	Mult.	Incomplete Abortion	101.4 P120		Few Bacilli resembling Coli Communis.	Haemorrhage for 13 days.Curetted & normal afterwards.
102 R.H.	M.A.C.21 July 4	II.	Normal	6th 100.8 P87	Normal	Nothing found in curettings.	Few fragments removed.Normal afterwards.
103 R.H.	R.M'C.39 July 11	VI.	Contracted Pelvis. Long labour at term Placenta adherent.	3rd 101.2 P120	Normal	Many Bacilli Coli Streptococci in Diplo form.	Curetted some clots & debris Normal next day 5th 101.6. Many Strepto.See Chart.11th 102.4 Staphylo.& Bacilli.16th 103.6 P120 Strepto.& Bacill.
104 Ext	H.K. 36 July 14		Labour completed before arrival.	3rd 101 P120		Bacillus Coli Com. Few Streptococci.	Curetted some membranes & clots. Normal next day.
105 R.H.	C.C. 23 July 15	III.	Normal	6th 101.8 P87	Normal	Nothing found in curetting.	Normal next day.
106 Ext	M.S. 23 July 18	II.	Labour complete on arrival.	4th 102.4 P128	Normal	Streptococci & few Diplococci.	Curetted placental tissue removed.5th 102.6 P108.6th 101 P106 7th 104.6 P114 Plug.8th 103.6 P114 Plug 9th 104.6 P100 10th 100.2 P100 11th 100 P96 & normal
107 Ext	E.O. 29 July 18	II.	Forceps.Placenta Adherent.Phthisis.	4th 100.2 P108	Normal	Streptococci scanty & hard to find.	Large piece of Placenta curetted Uterus to Umbilicus 5th 101.5 P110 Plug.6th 101.5 P130.7th 103 P160.8th 104.8 P120.Diarrhoea 9th 104.2 P140 Bedsores.Died 10th day. Cultures from this curetting gave diplo streptococcic liquefying gelatine.
108 R.H.	M.F. 24 July 18	V.		7th 101 P123	Normal	Scattered Diplococci Some grouped as Staphylos.	Curetted.Normal next day.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
109 R.H.	M.D. 22 July 22	I.	Long Second Stage. Placenta adherent. P.P.H.	2nd 104	Normal	No organism found in curettings.	4th 102 P120. Puerperal Ulcer. Temperature fell to normal as perineum granulated.
110 Ext	N.G. 24 July 24	I.	Forceps. Foul ulcers on patient's legs.	4th 102 P100	Foul	Streptococci in long chains.	Curette & plug 5th 100.6 P116 6th 100.4 P100 7th 98.8 P88. 8th 104.2 P124. 9th 100 P100 Normal afterwards. No Streptos. found 9th day.
111 Ext	C.H. 27 July 29	IV.	Incomplete Abortion 8 days before.	 103 P150		Few small Streptos.	Large piece decidua removed & uterus plugged. Normal next day.
112 Ext	M.S. 33 Aug.2	II.	Twins. Post.Part.Hge. Half placenta left.	2nd 104.4 P136	Haemorrhage.	Many Streptococci some long chains, cocci dividing.	Placenta removed with curette & sent to hospital. See notes.
113 Ext	M.M. 30 July 26		Normal	5th 102.8 P112	Normal	Streptococci some in diplo form.	6th 101 P116 Plug. 7th 103.4 P120 Plug. Organism almost absent. Temperature soon normal.
114 R.H.	M.K. 26 July 27	II.	Normal	5th 101.4 P114		Scanty small Streptos	Some decidua curetted. Normal afterwards.
115 R.H.	M.B. 40 Aug.5th	III.	Physometra. Several days in labour before admission.	4th 101.2 P96	Very offensive.	Many Bacilli Coli. Few Streptococci.	Vaginal wall contused by long pressure of foetal head against Tuber Ischii. See Chart.
116 Ext	M.H. 39 Aug.12	VII.	Foetus macerated. Born before arrival. Perineum absent.	3rd 100 P72	Very offensive.	Many Bacilli Coli.	Curetted membranes & decidua removed. Normal afterwards.
117 Ext	A.W. 20 Aug.12	I.	Normal	3rd 103.2 P120	Foul	Staphylococci & few Streptococci.	Curetted membranes & debris. Normal afterwards.
118 R.H.	M.A.D. 36 Aug.14	XI.	Normal	3rd 102.4 P108	Red	No organism found in curettings.	Some clot removed by curette. Patient has a cough but no auscultatory signs. Normal next day.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp. & Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
119 R.H.	R.F. 41 Aug.9	XII.	Normal Feeble health.	9th 101.2 P94	Red	Few solitary cocci.	Subinvolution. Cavity of Uterus 5 inches, bleeds easily. Convalescence good.
120 R.H.	E.N. 30 Aug.22	I.	Threatened Eclampsia. Examined frequently before admission.	3rd 101.2 P96	Normal	Many Bacilli Coli.	Nothing found in Uterus by curette. Normal afterwards. Patient had Erythema Scarlatiformae on second day.
121 R.H.	M.M. 29 Aug.21	I.	Forceps.	3rd 101.6 P94	Normal	No organism found in curettings.	This patient developed Puerperal Mania on 5th night, the Temperature then being normal.
122 Ext	M.O'C. Sept.3		Incomplete Abortion	3rd 101 P96		Many Streptococci. Few long Bacilli.	Large piece of decidua removed by curette. Temp. remained above normal for a few days but fell at once on admission.
123 R.H.	M.M. 24 Sept.3	II.	Normal	3rd 101 P120	Foul	Pneumococci.	
124 Ext	M.C. 37 Aug.31	X.	Accidental Hge. VII½ mos.	6th 101.8 P120		Staphylococci large groups. Chains Bacilli.	Curetted. Contents stinking. Frequently douched & plugged till Sept.13. Normal afterwards.
125 Ext	C.M. 22 Aug.29	I.	Forceps.	10th 102 P135		Nothing found in curettings.	Puerperal ulceration healing by Granulation.
126 R.H.	R.B. 25 Sept.11	I.		3rd 102 P100		Few cocci some similar to Gonococci.	
127 R.H.	M.B. 36 Sept.10	V.	Contracted Pelvis. Induced Labour.	3rd 102 P94		Bacilli Coli.	See Chart. This patient died.
128 Ext	B.D. 36 Sept.10	VII.	Normal	102 P102		Few isolated cocci.	Temp. 102 P112 at time of delivery. Admitted to Hospital Sept.23. Nothing found in Uterus.

Case	Name. Age	Preg.	Date Period & Remarks	Day of P. Temp.& Pulse	Lochia	Microscopic Exam.	Remarks. Subsequent Condition
129	M.B. 23	I.	Normal	3rd	Foetid	Clumps of Bacilli & few Streptococci.	Curetted.Normal afterwards.
.R.H.	Sept.17			101 P130			
130	M.M. 22	I.	Normal	5th		Staphylococci. Streptos & few Gonococci.	
R.H.	Sept.15			101 P120			